General Library
Univ of Michigan
Ann Arbor, Mich

C D R N I A
OIL WORLD

UNIVERSITY OF MICHIGAN
JUL 8 1959
ENGINEERING LIBRARY

your key to access under pressure... ANY TIME!

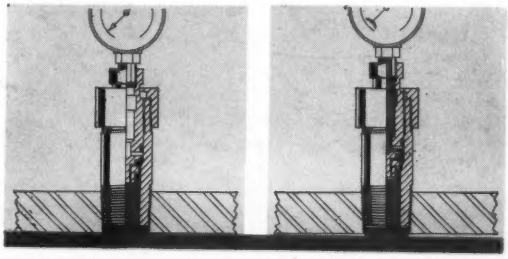
WHETHER IT'S oilfield production, refinery or pipeline application, the Cosasco Access Fitting is your key to entry against pressure—any time! With Cosasco Access Fittings you can seal off outlets but retain gaging or testing capacity... remove or replace valves or other externals... insert instruments, coupons, samplers, thermocouples and hydrogen probes without interfering with normal operations.

HOW IT WORKS. The Cosasco Access Fitting consists of three parts: a low-carbon stainless steel (Grade 303) *gage carrier plug*, a high-carbon steel *body* and a *safety ring*. In closed position (see illustrations at right), the plug primary seal presses against the tapered seat of the body, effectively blocking the flow of gas or fluid. In open position, the plug is backed off until it shoulders against the safety ring. This lifts the plug straight up from its seat and admits pressure—*but very little volume*—past the primary seal. Blocked by the O-ring secondary seal, the gas or fluid enters the plug through the by-pass holes for direct contact with gage or other external equipment.

ACCESS UNDER PRESSURE. By means of a special tool—the Cosasco High-Pressure Retriever—the gage carrier plug can be removed from the Access Fitting *under full operating pressure*. This enables the operator to gain access at will.

SAFETY. The Cosasco Access Fitting is the ultimate in safe devices for pressure readings. Only a minute volume of gas or fluid is ever admitted to the gage... yet accuracy is in no way impaired. Cosasco Access Fittings have a rated working pressure of 10,000 psi... are being successfully used at pressures in excess of this figure. Only 78 ft/lbs of torque are required to operate the gage carrier plug under 10,000 psi pressure, and the only tool needed is a standard box wrench.

FREE CATALOG. New 32-page catalog covers Cosasco's complete line of access fittings, including applications for oilfield production, wellheads, fracturing, drilling and corrosion surveys. Write for free copy today. Or send details and blueprints and let Cosasco Engineering Dept. solve your particular access-under-pressure problem.



Access Fitting closed. Primary seal in position against tapered seat of body. Plug is never in contact with body except at straight threads... is protected from pressure, fluid, distortion, wear at all times.

Access Fitting open. Gage carrier plug is shouldered against safety ring. Pressure is admitted past primary seal through by-pass holes into hollow plug interior. Secondary O-ring provides positive seal.

COSASCO®
DIVISION
PERFECT CIRCLE CORPORATION
11655 McBEAN DRIVE, EL MONTE, CALIFORNIA

H C Smith

3-CUTTER ROCK BITS

every bit the best

Branches in Principal Oil Centers Throughout the World

H C Smith OIL TOOL CO.

COMPTON, CALIF. • ODESSA • HOUSTON • DALLAS • OKLAHOMA CITY • GREAT BEND • EDMONTON

CALIFORNIA
OIL WORLD

PUBLISHED TWICE A MONTH
By
PETROLEUM PUBLISHERS, INC.

KINZIE MILLER—President and Editor • RICHARD SNEDDON—Contributing Editor
LELA MONROE—Vice President • LARRY O. MILLER—Secretary and Advertising Manager
2404 WEST 7th STREET, LOS ANGELES 57, CALIFORNIA • DUnkirk 2-6218

BRANCH OFFICES
CHICAGO—FRED JONES & SON—Room 517, 205 W. Wacker Drive, Chicago 6
CLEVELAND—HOWARD F. McCLENAHAN—1900 Euclid Avenue, Cleveland 15

• SECOND ISSUE
JUNE, 1959
VOL. 52 • NO. 12
WHOLE NO. 2018
June 30th, 1959

California Oil World is published twice a month at 2404 West 7th St., Los Angeles 57, California. Second-Class Postage Paid at Los Angeles, California. Subscription price $1 per year in U. S. and possessions, $2 in foreign countries including Canada.

The Biggest Comeback in the Oil Industry

What would you do if:

— the profits in your business had almost vanished?

— you owed nearly $20,000,000 in loans and unpaid interest and had no cash?

— adverse court decisions had cast a shadow on several of the key patents which were the foundation of your business?

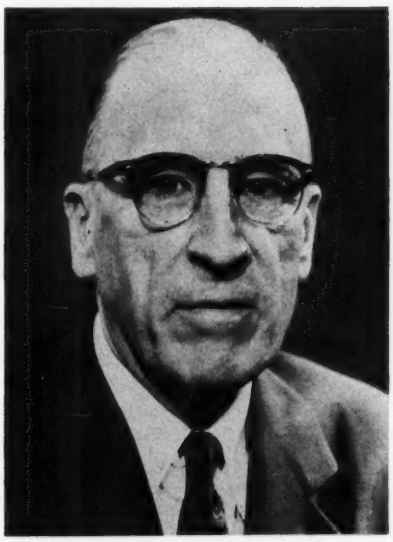
— you were being sued for over $40,000,000, and the lawyers said the opposition would probably collect?

— you were being threatened with an anti-trust suit?

— you were dissatisfied with your management team?

Universal Oil Products Company faced exactly that situation only fifteen years ago. How it overcame these problems and rebuilt itself into a company vital to the petroleum refining business may well be the industry's biggest comeback story of recent years.

The beginning of this unique organization dates back to 1914 when it was formed to exploit the Dubbs cracking process. Even though we take cracking, and other processes for getting more of what we need out of petroleum, pretty much for granted these days, industry veterans can recall what a tremendous difference UOP's contribution to the cracking art made in those early years.



David W. Harris, Chairman of the Board and Chief Executive Officer Universal Oil Products Company

Sparked by Henry Ford's mass production techniques, America was just taking to the roads. But the fact that Ford was successful in lowering the price of cars did not mean that the average man could run one unless he could get gasoline, and the prospect was quite bleak.

The typical refinery of those days could process into gasoline only about one quarter of the oil it received. There was a real chance that refiners could not produce sufficient gasoline—or else they would be swamped with oceans of unwanted by-products while making enough gasoline to meet the demand.

The Dubbs process, as developed by UOP, made it possible for the early refiner to radically increase the percentage of gasoline he produced, even when processing heavy oils. And it was gasoline of superior quality. As a matter of fact, its higher octane rating either eliminated or greatly reduced the problems of engine knock that had begun to trouble car owners. Several refiners were quick to realize the advertising and promotion advantages of this new product and started advertising campaigns to play up cracked gasoline.

In 1921, when the first Dubbs unit went on stream, UOP started to grow. Its growth was rapid and within a few short years it had rolled up an impressive profit history as it helped refiners, large and small, to overcome serious processing problems and boost its own earnings.

But UOP was not content to sit back and live off of its original process. Much of the company's profit was plowed back into research that steadily improved thermal cracking techniques, however, the problems facing UOP could not all be solved in the research laboratory.

From its beginning, the company made processes available to all who would pay for them on a royalty basis. This gave all refiners equal access to important technical advancements. To be certain that it would collect royalties, UOP had to police its patents. As a result of this self-protective measure, UOP often found itself involved in court battles while it sought protection against what it considered infringement of basic patents.

In many instances the defendants

were oil companies that were using other processes, so UOP often was suing people that it wanted as customers.

This somewhat sticky problem was solved in the early '30's when a group of major oil companies purchased Universal. These companies then received free use of the processes for which they had formerly paid royalties, but UOP continued licensing to independent refiners. Some independents grew uneasy about the arrangement because the processes were essential to the profitable operation of their refineries. They felt that at any time they might easily be deprived of the processes and services of UOP.

While owned by the majors UOP developed a whole series of new processes for the entire industry. One of these, catalytic polymerization, arrived at a most opportune time. The depression was in full swing and refiners had to cut the cost of their gasolines, yet make better fuels for the steadily increasing compression in automotive engines. Polymerization helped accomplish this by processing waste gases from cracking operations and changing them into high quality motor fuel.

As evidence that the new ownership had not changed the company's interest in the independent refiner, UOP came up with a midget polymerization unit that even the smallest refiner could use successfully in a competitive market.

Later developments by UOP included both isomerization and alkylation. Commonplace processes today, these made possible even larger yields of higher octane gasoline. They, too, came at a time when both industry and nation needed them badly. During the second World War, "Alky" gas was the familiar name for the 100 octane fuel needed to power high performance airplanes.

Isomerization, of course, is the actual reforming of the basic structure of petroleum products to make them more desirable. It, too, contributed to the production of 100 octane gasoline.

Even while these exciting technical advances were being made, UOP found itself in trouble. Its president died in 1944 and had not been replaced. Patents on which UOP had built a successful business were about to expire and adverse court decisions had further weakened its licensing position.

These were stunning blows. Together with some past legal difficulties they caused many companies to stop paying royalties to UOP and to sue for the return of those previously paid. Added together UOP's difficulties produced the situation described at the start of this article.

Maynard P. Venema, President
Universal Oil Products Company

What to do?

The major oil companies who owned UOP were in no position to straighten things out. The Justice Department was threatening an anti-trust suit because these oil companies could control the conditions under which their competitors could license Universal processes. So they decided to give UOP to the American Chemical Society—actually it went to a bank as trustee for a research fund of the Society.

The bank started an intensive search for a capable oil executive who could straighten out the tangled mess and get the company back on the road to a strong and profitable future. They came up with this individual in the person of David William Harris, then president of Arkansas Natural Gas Corporation—the man who had been largely responsible for putting Cities Service properties in that area on a paying basis.

That Harris was the logical choice is evidenced by the tremendous comeback Universal has made in the fourteen years that he has been at its helm. Today as Chairman of the Board and Chief Executive Officer, Mr. Harris vigorously directs the greatly expanded and diversified activities of a highly successful UOP. At his right hand, and closely identified with the success of the company, is the man that Mr. Harris and the Board of Directors chose to be president. He is Maynard P. Venema who started with the company more than twenty years ago and who came up through the ranks. Mr. Venema is both a patent lawyer and chemical engineer whose background and experience are ideally suited to the requirements of the position he holds.

In 1945, as president of Universal, Mr. Harris immediately set about to reorganize the company's financial structure. This kept the wolf from the door until the company could push through research and engineering ideas on a new type catalytic cracker. The result was a small fluid catalytic cracker ideally suited to the smaller refiners operations. Prior to this development cat crackers were huge, expensive structures altogether too costly for refiners who did not approach the major category. The small unit was an immediate success from the date of the first installation in 1946. This development helped tremendously as did the royalties UOP was still able to collect on those patents and processes whose validity was not in question.

At about the same time, Mr. Harris reasoned that even the refiners who had quit paying royalties and were suing for the return of those already paid needed and could use the vast amount of technical knowledge available through UOP. Accordingly, UOP started offering smaller refiners a complete package of technical knowledge on a service contract basis. Independents, who could not economically justify large staffs like those of major oil companies, now had access to an independent source of knowledge and technical skills second to none. The service, which included everything from advice on designing and building a refinery to maintaining it and keeping accurate checks on product quality, filled a long-felt need and produced more income for UOP. It has long since become an essential part of the industry.

While these developments were taking place, UOP was placing more emphasis on research—a policy that has continued without interruption. The company had the courage to support a program which called for the use, in a catalyst, of one of the most expensive metals known to industry—platinum. Skeptics doubted that anything could

come of this. Even when UOP announced the final result—Platforming—industry engineers were so doubtful that the company had to finance the first commercial unit. Eventually, of course, the process received world-wide acceptance.

Now the worst was over for UOP, but Mr. Harris was far from satisfied. He felt that some diversification was most necessary. Plenty of problems remained, but as Harris puts it, "we were lucky to have Pete Venema who was ready to assume a top management role and provide important help in solving those difficult problems."

With Platforming, UOP was in a pretty good position and both Harris and Venema felt that the time was ripe for the company to branch out into other endeavors. Manufacturing seemed a logical step and UOP began making the platinum catalyst used in the Platforming process so that licensors could be certain of a consistently high quality material. Eventually, Universal started to manufacture other products that resulted from its research work. These included corrosion inhibitors, anti-gumming agents and other additives for the petroleum industry, and stabilizers for the food and rubber industries.

Platforming proved to be such an unusual process that UOP considered it necessary to enter the construction business in the early '50's when other construction companies were swamped with work. Procon Incorporated was established as a construction subsidiary and has since become a leader in its field. It has built both petroleum refining and petrochemical facilities all over the world.

But consistent with its basic policy of emphasis on research, UOP has successfully developed a continuing stream of new processes. Among these are:

1. Udex—extracts aromatics from products of the Platforming process. This process was based on work originally done by Dow Chemical Company.
2. Unifining—removes sulfur and other impurities from crude oil. This process had made possible the economical refining of sour crude to a degree formerly considered impossible.
3. Rexforming—produces the highest octane fuel.
4. Penex—upgrades low value pentane and hexane components of oil and natural gas.
5. Alkar—provides the ethylbenzene needed for rubber and synthetic plastics.
6. Butamer—makes isobutane for the ever-growing number of alkylation units.
7. Molex—separates low octane normal paraffins from motor fuel.

Administrative and Engineering Building, Universal Oil Products Company, Des Plaines, Illinois

This parade of successful processes, well known to all in the refining industry, is proof that UOP's emphasis on research has paid off.

In 1956, the Trustee, Guaranty Trust Company of New York, and The American Chemical Society decided to dispose of Universal securities and petitioned the New York State Supreme Court for permission. Lengthy litigation followed during which time an impressive number of Universal's customers intervened to prevent the sale of UOP stock under other than restricted conditions to be imposed by the court. These independent refiners didn't want their source of technical knowledge and assistance to be cut off. They were successful in their efforts, and on February 4, 1959, the stock of Universal Oil Products Company was offered to the public for the first time in the history of the company.

Universal had nothing to do with the sale of its stock. It did not set the per share price ($25.00), nor did it benefit financially from the sale. The offering price was established with the approval of the New York State Supreme Court, and the Petroleum Research Fund of the American Chemical Society was the lone beneficiary of the net proceeds.

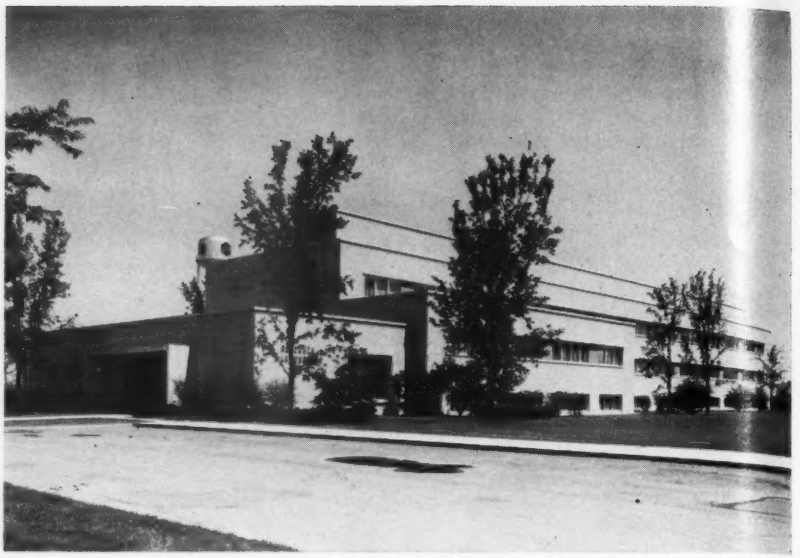
The total price was in excess of $70,000,000. Contrast that figure with the approximate net worth of the company when the owning oil companies gave the securities in trust for the A.C.S. At the time of the gift it was difficult to value the company in excess of $4,000,000. And not to be overlooked is the $11,500,000 paid to the Trust in interest and principal on debentures, and dividends during the fourteen-year period of the Trust.

When you consider the problems of just 15 years ago . . . $40,000,000 in lawsuits . . . $20,000,000 in debt and unpaid interest . . . no profits to speak of, you can imagine what Harris and his management team faced. But in retrospect, it serves to show the dynamic progress that UOP has made. This dramatic comeback . . . one of the great

industrial successes of recent years . . . is regarded by many as only the beginning.

For the first time in the history of Universal Oil Products Company it is now owned by the public . . . more than twenty-thousand stockholders who certainly have a stake in its future. These people who have invested their dollars in UOP stock should feel fortunate that the progressive management who brought new thinking . . . new policies . . . new attitudes . . . new life into the company continue to guide its destiny.

At the moment, research is, if anything, being given more emphasis. If past performance is any guide, even more important processes and products will come from this really unusual company that has become such a vital part of the oil industry.



Research Laboratory, Universal Oil Products Company

Supervisors Will Set Proper Olefin Level After Research

The oil industry told the Los Angeles County Board of Supervisors recently it was sure that after research had been completed the Board would set the olefin content of gasoline at the proper level.

In the meantime, Philip K. Verleger, special counsel for Western Oil and Gas Association, said the Association neither opposed nor approved the Air Pollution Control District's proposed Rule 63.

The proposed rule provides that the olefin content of gasoline marketed after June 30, 1960 may be not more than 30 Bromine number, and that gasoline marketed after December 31, 1961 may be not more than 20 Bromine number. Bromine number is a method of determining the percentage of olefins in gasoline.

Verleger said that the Association could not support the proposed rule, particularly the 20 Bromine number portion, because of the greater additional research needed to establish the validity of the levels required.

Furthermore, he said, the research currently under way indicates that the rule will be completely unnecessary if a successful device is developed that will burn up the hydrocarbons at the tailpipe of the automobile, i.e., an afterburner.

Verleger said, on the other hand, "we are not opposing because we know there is a great deal of work which still has to be done and that this Board will hear the evidence finally developed and set the level at the proper place."

Dresser's Earnings Up in Second Quarter

Dresser Industries in its second quarterly report to shareholders for the fiscal quarter ended April 30, 1959, reported a 60 per cent quarterly increase in earnings on a sales increase of 18 per cent. Net sales in the second quarter amounting to $59,955,438 showed a gain of $9,178,215. This improvement in net earnings in relation to sales is the result of both the increase in volume and the Company's efforts to keep unit costs of production at the lowest possible level, the report stated.

Reporting on the six months ended April 30, 1959, the quarterly letter gave figures stating that net earnings after taxes were $4,743,792 on sales of $110,732,661. This compares with the first six-month period in 1958 when net earnings after taxes were $4,968,-470 on net sales of $114,365,493.

Earnings of $0.63 per share in the second quarter showed an increase of $0.25 per share compared to the $0.38 per share in the first quarter.

The quarterly letter stated that the greater portion of the improvement in sales and earnings came in those Dresser companies which serve primarily the drilling segment of the oil and gas industries. These companies have been affected not only by contractions in the level of drilling activity for two successive years, but also by price reductions that were, in part, the result of keen competition for the available business.

According to H. N. Mallon, Chairman of the Board and J. B. O'Connor, President, "It appears that sales and earnings have passed their low point and that moderate but steady improvement will occur from this point forward."

Thompson Ramo Wooldridge Inc. Buys Controlling Interest in Magna Products, Inc.

Thompson Ramo Wooldridge Inc. has purchased a controlling interest in Magna Products, Inc. of Santa Fe Springs, California, Dr. Dean E. Wooldridge, president of TRW, and Dr. Gilson H. Rohrback, president of Magna, announced in a joint statement on June 16.

Magna, with main offices and facilities at 11808 South Bloomfield Avenue in Santa Fe Springs, was incorporated as a California corporation in June, 1951, to provide specialty chemicals and electronic instruments for the chemical and petroleum industries. In addition, Magna is carrying on study programs in solid propellants.

No financial details of the purchase were disclosed other than that TRW will hold 51 per cent of the stock of Magna.

Eliminate *high-pressure surges...*
Fill *your casing automatically...and*
Circulate *at any time while running-in with*

BAKER CIRCULATING FLEXIFLOW

Now, not only can you fill casing automatically from the bottom while running-in, and protect low-pressure, permeable zones from damaging pressure surges – but you can also *circulate at any time.*

Baker "Circulating" FLEXIFLOW Fill-Up Collars feature a self-adjusting Flow Control Diaphragm that opens up (see Fig. 2) to relieve destructive pressure surges – as high as 5,000 psi – which tend to build up when casing equipped with conventional floating equipment is lowered in open hole. And then, when the rate of lowering is slowed down and pressure from below is reduced, this Flow Control Diaphragm closes down to prevent overfilling; see Fig. 3.

That's why Baker FLEXIFLOW Collars help prevent costly circulation losses . . . reduce mudding-off of producing zones . . . permit maximum recovery . . . and eliminate fracturing as a cause of primary cementing failure.

Surface filling is completely eliminated. Your casing fills *automatically* from the bottom *as it is run.* You can keep the casing moving, except for the short interval required to add and make up a joint.

In addition, you can *circulate at any time* while running-in. And a back-pressure valve can be brought into action for cementing by merely pumping a Bakelite Ball down the casing to the Collar; see Fig. 4.

Ask your Baker service engineer for more information about the successful Baker "Circulating" FLEXIFLOW Fill-Up Collar, and its companion, the Baker Model "E" Triplex Cementing Shoe, Product No. 136-E—a perfect combination for many "problem" cementing jobs.

Fig. 4— Back-pressure ball dropped and pumped through hole in diaphragm.

Fig. 5— Ball in position to provide back-pressure valve.

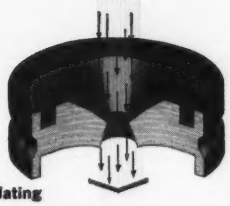


Fig. 1 — Circulating

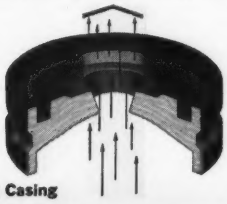


Fig. 2 — Filling Casing

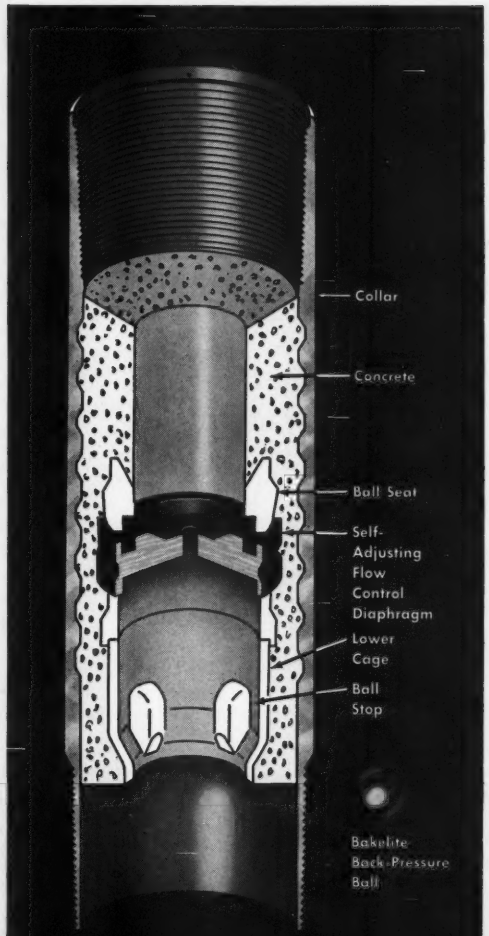


Fig. 3—Baker Model "D" Circulating FLEXIFLOW FILL UP Collar, Product No. 161 D M&F

BAKER OIL TOOLS, INC.
HOUSTON/LOS ANGELES/NEW YORK

BAKER

A 3-WAY CHOICE
for putting the
TRETOLITE DESALTING PROCESS
in operation

Tretolite desalting, the first all-chemical desalting process, is now available to you in a choice of plans, one of which is certain to fit into your operation and financial policies:

1 Standard Proposal

The Tretolite Company furnishes a list of the equipment required, instructions for installation and working drawings, designed to tie in with the flow stream in the customer's refinery. Data on the rate of Tretolite injection for optimum desalting results, operating instructions, temperatures, pressures and water requirements are also included. Tretolite Refinery Service Engineers check construction procedure to insure that installation is according to specifications; they also assist with start-up and make periodic visits after the unit is in regular operation.

2 Outright Purchase

The Tretolite Company ships the desalting plant equipment to the refinery. Erection is then carried on by refinery personnel or by an erector of the customer's choice. Inspections during construction, start-up assistance, and periodic inspections are provided by the Tretolite Refinery Service staff as in plan No. 1. When the desalting plant is ready to go on stream, Tretolite Refinery Service Engineers supervise an acceptance test run to meet the guarantee of minimum chemical requirements and salt removal efficiency as set forth in the contract.

3 Rental with Option to Purchase

The rental plan is similar in all general respects as to instructions, supervision and materials furnished in plans No. 1 and No. 2. After acceptance requirements have been fulfilled, the pre-determined annual rental fee is payable according to the payment option selected by the customer.

After the plant has been operated for three years on the rental basis, the customer has the option of purchasing the equipment for a pre-determined price. (This price is reduced after each year's rental.) After a unit has been used on a rental basis for seven years, the annual rental fee is reduced about 50%.

PETROLITE
CORPORATION

TRETOLITE COMPANY OF CALIFORNIA
DIVISION
5516 TELEGRAPH ROAD, LOS ANGELES 22

You Can't Take It With You . . .

but you can keep it while you got it!

It's hard to believe that anything as good as America has to be sold, but it does. It has to be sold because we in this country profess to be so "goldarned" busy perfecting it, that we've pretty nearly lost sight of how good it was to start with.

There's an awful lot of loose-lipped chatter going on these days by theorists, social planners, intellectual barnstorm troopers, and just plain, clay-headed idealists, who seek to convince the American people that we ought to bow our heads in shame and apologize for America.

They're a tireless lot too—they've been harping away on the same old flea-bitten, dog-eared tune so long, that they've succeeded in convincing a lot of people that we'll just have to scrap the whole frame-work of our government and start fresh with a new one to make it any good.

How do you identify these goofs? Well, unfortunately it's not too easy. You see they don't wear any badge, or special colored necktie—they don't look alike—and more dangerous still—they don't all preach and act alike either.

Because if they did, you'd probably say, "Look here, you jerks, I don't like what you're trying to do to my country! Cut it out!" And then if they didn't you'd probably walk right up and sock'em.

Unfortunately, he's not easily identified—you see, he might be a preacher, or a teacher, he might be a business man, or a professional man, an industrialist, or a senator; he might be a judge, or he might not be a "he" at all. In fact, he might be a SHE.

They are everywhere—and their number is legion.

They want to make America over again to fit the screwball pattern of a world that came into being in Europe and almost knocked the props right out from under the whole cockeyed world.

It's your America they want to tear down and overhaul —the same America that has given us a better chance than any other people on this earth ever got. The America that was able to come to the rescue when the whole world was tumbling into chaos.

These people are talking about the new social order—they're poppin' their tops about our responsibility to a new world order—a new economic equity—controlled industry —regulated labor for security. They're scrappin' the Atlantic Charter and hocking your shirt. They're latchin' onto the affirmative, Bud, and accentuating "Hell" out of the negative. They're talking about everything under the sun except the America you know and want to keep.

Don't say it can't happen here—it's happening here NOW—and we'd better do something about it, too.

What, you ask?

How about going ahead by going back to America—and stop trying to be a good-time Charley to the whole world at the expense of America's future existence?

It's all right to keep on trying to hit the moon but it's due time that we joined the crusade to rid America of a minority of ideological nitwits and renegades—who scoff at, and make sport of, the rights and privileges guaranteed under a constitution written in the fine script of red blood. Keep them, Brother! You can't take them with you across the party line.

Minckler Offers Rule Change To Strengthen Smog Control

Proposals to strengthen rules affecting the burning of fuel oil and to make additional safeguards to protect the health of residents of the Los Angeles basin were offered June 11 by a leading California oil executive.

R. L. Minckler, president of General Petroleum Corporation and acting chairman of Western Oil and Gas Association's Air Pollution Policy Committee, made the recommendation to the Los Angeles County Board of Supervisors.

At the present time, high sulfur fuels cannot be burned in the County from May to September.

Minckler proposed that the prohibition be strengthened to provide: (1) that the rule be in effect 12 months of the year and (2) that fuels with more than one-half per cent sulfur cannot be burned when sulfur dioxide levels reach one part per million at any two APCD monitoring stations.

In addition, under Minckler's proposal, these same fuels cannot be burned when smog is forecast by the APCD. The present APCD first alert level for sulfur dioxide is three parts per million.

"We feel that sulfur dioxide is not now a hazard to the health of the community in Los Angeles," Minckler told the Board. "However, we all should guard against buildups in sulfur dioxide concentration.

"We can safeguard the medical health of the community by prohibiting fuel oil burning when these concentrations might arise. At the same time, we can safeguard the economic health of the community by permitting burning when such concentrations will not occur."

Minckler said if the rule is left as it is now the economy of the area will be seriously affected by: (1) Reduction of fuel oil manufacturing and crude oil production. (2) Higher prices for petroleum products. (3) Shortage of fuel to meet future energy needs.

He said the expensive conversion to other petroleum products of fuel oil thrown on the market would add to the consumer price.

Minckler quoted both the District and gas company officials as saying that both gas and fuel oil will be needed to meet energy requirements of the area.

Dr. Moyer Thomas, of Stanford Research Institute, who is the inventor of the standard device for measuring sulfur concentrations in the air, said that sulfur concentrations in Los Angeles are generally far below those required to cause plant damage. He testified that he found no significant differences in health of school children who live in high sulfur dioxide areas as compared with those who did not.

Dr. Thomas said the concentrations of sulfur dioxide in Los Angeles are inconsequential. He said it would be "much more logical to have a regulation which would prevent any possible buildup and do it 12 months a year."

Dr. Paul Kotin, cancer researcher at the University of Southern California, introduced Dr. Arthur Vorwald of the Wayne University Medical School of Detroit. Dr. Vorwald told the Board that the safeguards proposed by Minckler would protect the health of the community.

Dr. Morris Neiburger, Chairman of the Department of Meteorology at UCLA, testified that the Air Pollution Control District had been about 75 per cent correct in its smog forecasts. It was pointed out that even when *the* forecasts were not correct fuel oil burning would be prohibited if sulfur dioxide concentrations reached the one part per million level.

5 REASONS WHY
TRETOLITE
all-chemical
DESALTERS
are in use wherever oil is refined

1 **97% to 100% SALT REMOVAL**—The highest standards of purification possible in commercial operation. In addition to a 97 to 100% range salt removal, Tretolite Desalters also remove other solids, fines and trace metals from the crude charge.

2 **AVERAGE CHEMICAL COST OF $.0013 PER BARREL**—A real economy of operation that is consistent . . . about 1.3 mills per barrel. Water usage is also minimal, and only the pumps require power.

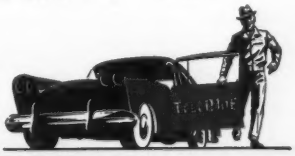
3 **THE ORIGINAL ALL-CHEMICAL DESALTING PROCESS**—Tretolite originated all-chemical desalting, and was the *first organization* to provide a desalting system for refiners. The result is a desalting experience unequalled in this field.

4 **PERFORMANCE-PROVED EVERY DAY BY 1½ MILLION BARRELS**—Wherever you see refining, you're sure to see Tretolite Desalters.

5 **AUTOMATIC OPERATION**—The epitome of simplicity—requires only minimum operating attention. If you have a desalting problem . . .

Ask the Man in the Red Car

The Tretolite Service Engineer is always on call to assist you in any of your maintenance and processing problems.



PETROLITE
CORPORATION
TRETOLITE COMPANY
OF CALIFORNIA
DIVISION
5515 TELEGRAPH ROAD, LOS ANGELES 22

Petroleum LORE and LINGO

By RICHARD SNEDDON

Aromatics & Ali Baba

There is a sort of romantic twist to the story of the aromatics. They seem to be so inseparably associated with the frankincenses and myrrhs of the Bible; the spices and balsams of ancient Arabia, and all the anointments and perfumery affected by the ladies of the harem. The very word "aromatic" conjures up visions of camel caravans, oriental intrigue, and the magic and mystery of "The Arabian Nights' Entertainments." And don't forget that oil played a significant part in some of the most popular of these fascinating tales. Morgiana, the female slave of Ali Baba, exterminated 39 of the forty thieves by pouring boiling oil into the tall jars in which they had concealed themselves. Then just to show how helpful a helpful woman can be, she polished off the captain of the band with his own dagger. Aladdin, the son of Mustafa, a poor tailor, became the Croesus of his time by merely rubbing an oil lamp that had somehow been endowed with the power to provide in a large way.

The word "aroma," from which the adjective "aromatic" stems, either came from, or gave its name to, a species of shrub, the aroma, that bears a fragrant blossom, and fragrance is from the Latin fragrare "to smell sweetly." "Aroma," as now used differs from "odor" which simply means any kind of smell, and is the antonym or opposite (Greek *anti,* "against," and *onyma,* "word") of "stink," which refers strictly to the offensive types of effluvium.

The Benzene Series

Now, looking back at the first four members of the aromatic family, benzene, toluene, xylene and mesitylene, we find that "benzene" was originally "benzoin" and in some of the Middle and Far-Eastern countries was known as "benjoin" which appears to have come from the Arabic *luban jawi.* That is, the frankincense of Java, which latter was the former name of Sumatra. As *luban jawi* was pronounced by the people who were familiar with it, the last syllable of the first word was so emphasized that the first one was lost. It thus became *banjawa,* then *banjoin,* and finally *benzoin.* Words commonly change that much in the course of long usage.

Frankincense & Myrrh

The frankincense of Java was a kind of sap gathered from a tree that grows well over there. "Incense" is from Latin *"incendere," "to burn"* (the same root that gave us "incendiary), and the prefix "frank—" is "pure" from an old French word—*franc,* having that meaning. The material is resinous in character, is rich in benzoin, and burns with a very pleasant odor. It has been used since the earliest times in religious rites and ceremonies and is still widely employed by many peoples in many places for the simple purpose of sweetening the air around them.

Today benzene is made in large quantity from petroleum by special refining processes. It is contained in a gasoline stock mixed with many other components, and its recovery is largely a matter of separation and purification. This is accomplished by solvent extraction. The stock is mixed with the solvent, which dissolves the benzene without affecting the remainder. The solvent and benzene are then separated by distillation. It has a multitude of uses in the process of industry, particularly in the manufacture of rubber, resins, detergents, plastics, nylon and insecticides.

The Balsam of Tolu

Toluene, the second member of the aromatic hydrocarbons, takes its name from the "Balsam of Tolu" and the "-ene" suffix that identifies the series. A balsam is a soothing ointment, from Latin *balsamum,* "balm." The full name of Tolu is Santiago de Tolu and its soil and climate appear to be particularly conducive to the healthy growth of *myroxylon balsamum.* This is another tree that yields generously of the resins and oils from which soothing salves, healing unguents (Latin *unguere,* "to anoint"), and beauty preparations have been made all down through the ages. Wherein it is to be seen that besides their pleasing scents, the aromatics have long been treasured for their pain-alleviating and other medicinal qualities.

Coal Tar vs Petroleum

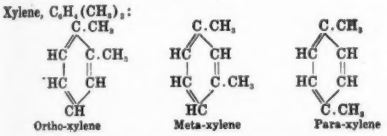
Up to the time of the first world war the main source of Toluene supply, perhaps the only one, was coal tar distillate. About 1915, however, methods were perfected for its manufacture in sizable quantity from petroleum. It was much needed for making T. N. T. (trinitrotoluol), a powerful explosive, and it subsequently played a considerable part in ending a four-year stretch of horror. Later benzene and toluene fractions from petroleum were eagerly sought for use by German producers of aniline dyes ("Anil" is the name of the indigo plant from which many dyes are made). Still later it was the aromatics that "souped up" our aviation gasolines and gave the pilots of the second world war the extra lifting power and speed that gave them their edge over the enemy. Toluene was pretty much in demand for explosives so recourse was had to a slightly heavier benzene-ring compound, cumene. This wasn't quite so good as toluene but it adequately filled the bill. Cumene takes its name from "cumin" a dwarf plant of the aromatic type that grows in Egypt and Syria.

The Xylene Isomers

The third member of the benzenes is xylene which is part of the Greek *xylon,* "wood," and that is quite appropriate because this and all the other aromatics are to be found in the distillates of wood and coal, and the exudations of various trees, "exudation" being from the Latin *ex,* "out," and *sudare,* "to sweat." There are three isomeric forms of xylene, and they like all the aromatics are not only

excellent solvents but are ideal base compounds for the manufacture of a long list of useful commodities. The three isomeric forms are known as ortho-, meta-, and para-xylene. These are prefixes commonly used by chemists in their system of names. They are of Greek origin. Ortho- means "regular" or "normal"; meta- means "secondary," and para-means "comparable or "similar."

Again perhaps it should be noted that although these isomers contain exactly the same number of carbon and hydrogen atoms, the slightly different structure in each instance has a marked influence on the properties. The general formula of the xylenes is $C_8\ H_{10}$, or $C_6\ H_4\ (CH_3)_2$, which means that two of the H atoms in the benzene ring have been replaced by methyl radicals (CH_3), as a matter of fact, toluene is sometimes known as dimethyl benzene. Here is how the xylenes look structurally:



The Distinguishing Features

These three isomers all have the formula $C_6\ H_4\ (CH_3)_2$, but it will be noted that the methyl radicals are attached at different positions in each instance. That is wherein the variations in property and behavior lie. In order to distinguish them from each other without drawing the graphic formula every time he refers to them, the chemist simply indicates the position of the methyl radicals in the ring.

Starting at the top and going around clockwise, the positions are numbered one to six. Checking back now, it will be seen that the isomers are clearly designated when their formulas are written as follows: Ortho-xylene, $C_6\ H_4\ (CH_3)_2$ 1, 2; meta-xylene, $C_6\ H_4\ (CH_3)_2$ 1, 3; and para-xylene, $C_6\ H_4\ (CH_3)_2$ 1, 4. The figures at the end are the position numbers. From a little way off this sort of stuff may look a trifle complex, especially to one who is unfamiliar with organic chemical formulas and laboratory jargon, but in reality, it is comparatively simple and even if the reader has never heard of a benzene ring in his or her life, the process of hydrocarbon classification and isomerization should become reasonably clear after a few minutes of concentration.

Synthetic Fibres

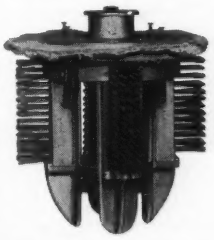
One of the most interesting of the xylenes is para-xylene, a main product in the synthesis of a light-weight, wooly fibre that has proved very popular for the making of cool, long-wearing, wrinkle resistant garments that do not shrink or bag. It is from this material that we get our "drip and dry" shirts and many other garments that are now a part of the national wardrobe. Ortho-xylene is converted to phthalic anhydride which has become a most effective component of high quality paints. Meta-xylon is an excellent blending product that finds many applications in the preparation of essential refinery stocks. The scope of the xylons is constantly widening; the demand continues to increase; and their future in the synthesis of valuable petrochemicals is well assured. The word "phthalic" is a derivative of naphthalene which has already been discussed, and anhydrons" is from the Greek *an,* "without" and "hydor" water.

The Cumenes

The fourth member of the aromatic series is mesitylene. It is believed to derive its name from the Greek *mesites,* "mediator" but no one seems to know exactly why. Perhaps it is because like all the aromatics, it is a sort of middle product that can be either built up or broken down into an endless array commercially useful chemicals. Its formula is $C_6\ H_3\ (CH_3)_3$ and it also has a number of isomeric forms, which are commonly grouped under the name cumene. This takes us back to the balsamic shrubs and bushes again because cumene is an offshoot of "cumin" which is a dwarf plant of the carrot family, native to Egypt and Syria, and cultivated for its aromatic seeds. There is no need to go into further detail now. The benzene family is obviously a large and extremely useful one. Its members are of prime importance in the synthesis of an endless variety of chemical compounds, and as agents in many industrial processes. In addition, they have inherent qualities and properties in themselves that redound in an amazing way to the benefit of the human race.

THE CAVINS DUMP BOTTOM...

is the tool you need for dumping any amount of cement, sand, gravel, acid, or chemical, etc., in a continuous operation without interruption. The full open throat eliminates the hazard of stringing a load through the fluid column. There are no valves, sleeves, or ports to become fouled or clogged—no danger of accidental or premature unloading due to line whip or faulty brakes.



THE CAVINS BRIDGING PLUG ... for use in combination with the CEMENT DUMP BOTTOM, is ideal for use in starting an off-bottom bridge or plug. Made of drillable material, can be used for temporary or permanent installations.

24 HOUR SERVICE FROM...

THE CAVINS COMPANY

Main office and plant: 2853 Cherry Avenue, Long Beach 6, Calif.
Telephone: GArfield 4-8564

Ventura • Taft • Santa Maria • Bakersfield • Denver

Other Constituents

These are not the only hydrocarbons that are found in petroleum. There are the di-olefins and the acetylenes in which adjacent carbon atoms are united by triple bonds that render them as unstable as butter in the tropics, and hence also hot favorites with the chemists who today are tearing the molecules apart and uniting together again in new and strange ways. There are olefin-acetylenes, olefin-terpens, diacetylenes, and other distant cousins of these that are also highly vulnerable to the lure of fresh companionship and the formation of fresh alliances. The acetylenes are so called because of their relationship to acetic acid which is the main constituent of *acetum*, that's Latin for "vinegar." Terpenes are from "terpentin," an old name for turpentine, and the latter, as any painter will tell you, is distilled from the resinous exudations of the terebinth tree, but don't ask the painter or any dictionary either how the tree acquired its terebinthian moniker, because neither of them seems to know.

Fungicides & Bactericides

Before leaving the chemistry of the hydrocarbons behind, there are to be noted several high boiling point series such as the anthracenes. After all the gaseous and more fluid portions of crude oil have been distilled off, the viscous residue that remains is usually rich in the heavier members of the families already mentioned, together with a miscellaneous mess of stuff that is ordinarily designated as road oil, fuel oil, asphalt, or just plain old residuum. There is a series of compounds called naphthenic acids that contain oxygen. Soaps made from these acids possess powerful fungicidal and bactericidal properties. That is to say, they kill fungi and bacteria, or molds and germs. They are employed for preserving wood and fabrics, and are also components of paint driers, petroleum product fillers, disinfectants, and soluble oils.

Burning Stone

In the heavy ends already mentioned may be contained resinous and asphaltic bodies that have been formed by the attack of that eager combiner, oxygen, on the double and triple bonded weaklings of the hydrocarbon broods, or by the process of polymerization that was defined in a preceding chapter. Sulphur is present in many oils in many forms and about the only way it can exist without creating a stink that would foul an abattoir ("slaughter house," from French abattre, "to fell") is as free sulphur. The derivation of the word "sulphur" is uncertain but the substance is the old "brimstone" of Bible times which seems to be an adaptation of "burn" and "stone," so solid sulphur is "burning stone" which is apt enough. Mixed with molasses it was once an almost universally adopted spring tonic that was about as popular with children to whom it was mostly administered as is spinach with the small fry of today.

Sulphur From Oil

The fact that free sulphur is now recovered in considerable quantity from petroleum shows how diverse the oil industry has become. It is used for making matches, chemicals, gunpowder, fertilizers, paper-treating materials, and many other products. It also occurs as hydrogen sulphide or sulphuretted hydrogen, which has the alluring odor of rotten eggs; carbon bisulphide, which smells like rotten cabbage; and a variety of organic compounds, including the mercaptans that smell like other kinds of putrefaction. The mercaptans take their name from a Latin phrase *mercurium captans* which means "mercury seizing," because under the proper conditions they do unite with mercury very readily. Like the rest of the sulphur compounds they have a most unwholesome odor. They are sometimes present in crude oil and in untreated natural gas, and when leaks occur in the lines carrying such contaminated material, they are sometimes rather easily located by the presence of hovering buzzards and howling coyotes. These carnivores (Latin *carnis* "flesh" and *vovare*, "to devour") hang around the vicinity of the leak, apparently under the impression that something has died, something that might provide a tasty meal for those who like their meat well ripened.

Moth Balls from Petroleum

It will be realized, of course, that this treatment of the constitution of petroleum is both elementary and incomplete. The discussion has been designed to create a desire to learn rather than to teach; to stimulate rather than to edify; and in its struggle to be of some value, there is no doubt that in spots it has reached great heights of mediocrity. Much has been missed that might have been included and much has been included that might have been left out. Oxygen and nitrogen are contained in most petroleums and, in isolated instances, perhaps many other elements that have gone unmentioned here. A common constituent of crude oil so far ignored is a hydrocarbon series, the first member of which is naphthalene. Without naphthalene we might never have known the luxury of moth balls. Here, however, the prime concern has been to promote some slight understanding of the base components of petroleum; of what in turn they are composed; how the same component can exist in in several forms each with distinctive qualities; and how they can all be torn asunder and reassembled in an infinite variety of ways.

The Change Over

It is impossible to tell the complete story of any applied science in these times. Growth is so fast that segments of business, like spores from a bacterial colony, keep splitting off from the main body, and in no time are sufficiently large to do some sporing on their own behalf. This goes on and on until the diversity of operations is so wide and the speed of change so fast that no human can comprehend it all. When I began my oil career in the research laboratory 35 years ago, we were largely interested in improving an already existing line of illuminants, fuels, lubricants, solvents, road oils, and asphaltic products. It was all quite simple and well defined. Now from the aromatics alone, the petroleum industry makes hundreds of petrochemicals that were never dreamed of then, and is a prolific source of others that were well known but difficult to come by.

Industrial Growing Pains

Where once one laboratory and a dozen chemists handled all the technical problems of a large oil company, now a dozen laboratories that are literally aswarm with scientists are barely able to keep abreast of the technological surge. There is hardly a facet

SMITH-EMERY CO.
Chemists—Engineers
Established 1910
Metals—Oils—Waters
Analyzed and Tested
Shipments Certified
781 E. Washington Blvd.
Los Angeles 21, Calif.
Member
American Council of Independent Laboratories

PENEX®

New process converts light, normal paraffins to isoparaffins

Here is a process which for the first time enables the refiner to economically upgrade pentane and hexane fractions, thus producing a high octane product with improved burning qualities, without plug-fouling and pre-ignition, with better sensitivity and better lead susceptibility.

The Penex process is economical in installation, operation and maintenance. Regeneration is not required, thus reducing capital investment, simplifying operation and reducing maintenance. Catalyst and reaction products are non-corrosive so lower cost carbon steel construction can be used.

Penex has an additional advantage when used with a reforming process such as Platforming®. Make-up hydrogen used in Penex processing is derived from the Platforming net high pressure separator gas. Hydrogen is consumed in insignificant quantities. This combination of processes also gives a considerable yield advantage at the same octane number.

Many other UOP processes are available to the refiner who is seeking ways to improve his operating efficiency and manufacture the kind of products that will bring him maximum market and economic benefits. These processes are available to all refiners. They are described in an informative fully illustrated booklet, "UOP Processes and Products," which will be furnished on request. Write for your copy today. Address:

UNIVERSAL OIL PRODUCTS COMPANY

30 Algonquin Road, Des Plaines, Illinois, U. S. A.

More Than Forty Years Of Leadership In Petroleum Refining Technology

of industrial enterprise in which petroleum does not play an indispensable role, and the end is not yet! The chemist of today must of necessity be a specialist in some one area since he can not hope to be more than sketchily informed on the total picture. I became so bewildered by the whole situation some twenty years ago that I traded my aspirations in the chemical field for a debauch into hack writing of a peculiarly hack variety. The first product of this new effort was, I blush to tell, a poem of farewell to the laboratory. It was a parody on Rudyard Kipling's "If" and here it is, slightly modernized for space age consumption:

WHIFF!

If you can make the vilest stinks invented
And work in them from morn till late at night;
Or with your lot be perfectly contented
When you are asked to fool with dynamite;
If you can still remain quite calm and placid
While plant officials wring their hands and fret;
Or being told to test a fuming acid;
Can suck it through a 5 ml pipette

If you don't get just what the boss expected,
Yet have the pluck the true results to state,
And from the truth refuse to be deflected,
And never stoop to adding in the date.
If you can read a flock of sample numbers
When all the labels have been soaked in crude,
And can, when wakened rudely from your slumbers
At two a.m., respond in cheerful mood.

If you can drop the fruit of long exertion,
Before you've weighed it, on the concrete floor,
And feeling not a symptom of aversion
Can start again as blithely as before;
If you can improvise a scintillator
From pieces of an old magneto coil
And raise the throughput of the dehydrator,
And test the boss' hootch for fusel oil.

If you can subjugate all thoughts of pleasure
And still retain a meed of self-esteem;
If you can give your few short hours of leisure
To keeping up with every screwball scheme.
If you'll donate your every waking minute
And seek your sole reward in duty done,
Yours is the lab and everything that's in it,
And what is more, you're welcome to it, son!

Pioneer Drilling Contractor Opens Office in San Francisco

Decision of E. C. (Ned) Brown, pioneer California petroleum drilling contractor to become active as a developer of gas fields in Northern California was announced this month as he opened offices in San Francisco.

Brown is the founder and former sole owner of Brown Drilling Co., of Long Beach, and International Brown Drilling Company. He recently retired as Board Chairman of those organizations, which he had expanded into a worldwide operation over a period of two decades.

His newest venture to be conducted under his own name, will be headquartered at 348 Russ Building, San Francisco, and will first involve gas well development in Northern California, a territory where he pioneered as a drilling contractor and put down a high percentage of the wells that have been drilled in that area.

Actual drilling will be started this month in the Rio Vista gas area in Northern California, Brown said. He plans to drill between three and five wells in the area during the balance of the year.

Brown came up in the petroleum field the hard way, as an oil field worker and finally as a drilling contractor.

He founded Brown Drilling Company as a proprietorship in 1937. The company had an initial payroll of only 18 people and it expanded under Brown's careful guidance until he began extensive overseas drilling operations more than 12 years ago.

Finally, in 1957, he sold the Brown Drilling group of companies to Sofina, headquartered in Belgium. After that, he remained as consultant and chairman of the board.

Continental-Emsco Expands California Facilities

J. A. Crawford, president of The Youngstown Steel Products Company of California, has been appointed an executive vice president of Continental-Emsco Company, a division of The Youngstown Sheet and Tube Company, effective June 29th. Mr. Crawford will also continue as president of The Youngstown Steel Products Company of California with headquarters at Los Angeles.

As of August 1st, 1959, under the direction of Mr. Crawford, Continental-Emsco will represent The Youngstown Sheet and Tube Company in California in the distribution of Youngstown's complete line of oil country tubular products.

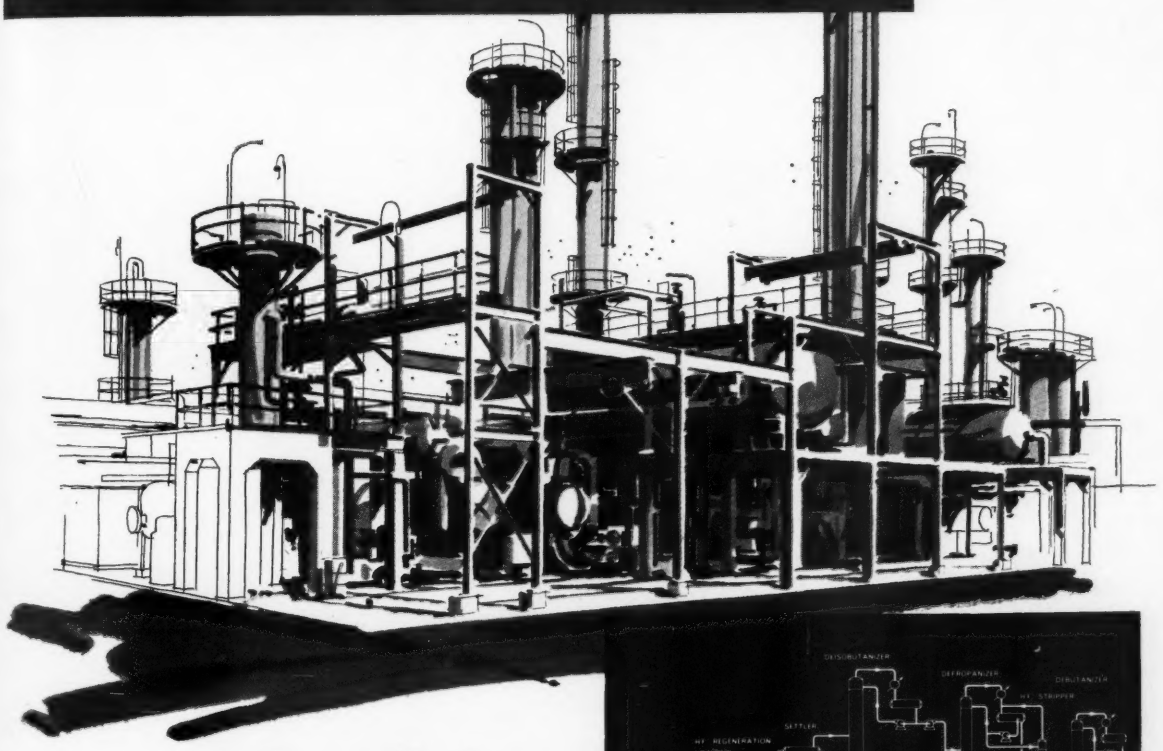
R. I. Whelan, C. C. Dunseth, W. R. Clardy, W. C. Grimsted, J. W. (Joe) Rodgers and Richard Graham serving as tubular representatives of the Youngstown Steel Products Company will continue in the same capacities with Continental-Emsco.

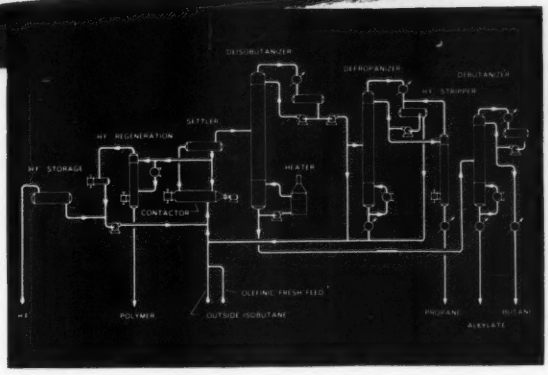
W. C. Kinder, a vice president of Continental-Emsco at Dallas, will move to California, with headquarters at Los Angeles, where, under the direction of Mr. Crawford, he will supervise Continental-Emsco's expanded operations. L. M. Bush, division manager of Continental-Emsco's California division, will continue in his present capacity, with headquarters at Los Angeles.

F. M. Mayer, president of Continental-Emsco Company stated his company's confidence in the future of the California oil and industrial markets prompted the expansion of facilities. Three new stores, at Los Angeles, Bakersfield and Ventura have been added, which are in addition to D+B production stores operating in Long Beach, Santa Fe Springs, Coalinga, Taft and Oildale.

ENGINES
USED — REBUILT — NEW
For Oilfield Purposes
An accumulation of inventory is being SPECIALLY PRICED FOR CLEARANCE by one of the West's outstanding engine rebuilders.
FRAZIER WRIGHT CO.
2315 So. Hill Street
Los Angeles 7, Calif. Richmond 9-8191

HF Alkylation





Makes Alkylate, Top Anti-Rumble Motor Fuel

A practical, economical means of producing motor alkylate, a high octane, top quality gasoline blending component, is available to petroleum refiners through the UOP "HF" Alkylation process.

"HF" Alkylation is a catalytic process which combines olefins such as propylene, butylenes and amylenes with isoparaffin (usually isobutane) to form a mixture of branched chain hydrocarbons of higher molecular weight known as alkylate. "HF" Alkylation is also widely used for producing high octane aviation gasoline.

Motor alkylate, an isoparaffin fuel component, burns with a minimum of carbon deposits even in today's modern high compression automobile engines and thus greatly reduces surface ignition and its consequent "rumble."

Another method for producing alkylate is also available to refiners through UOP. It is similar to the "HF" method but uses sulfuric acid as the catalyst. This process is licensed by Universal Oil Products Company under their own patent rights and the patent rights of Shell Oil Company, The Texas Company, The British Petroleum Company, Limited and Standard Oil Company of New Jersey.

These processes for producing alkylate afford further evidence of UOP's policy of providing the refining industry with every means for a well-rounded, profitable manufacturing operation.

UOP®

UNIVERSAL OIL PRODUCTS COMPANY

30 Algonquin Road, Des Plaines, Illinois, U.S.A.

More Than Forty Years Of Leadership In Petroleum Refining Technology

Two Drilling Rigs Headed for Argentina

The first of two drilling rigs purchased from the Continental-Emsco Company left Houston May 1 bound for Argentina's oil fields. The two rigs, with accesory equipment, cost in excess of two million dollars.

Romulo Eduardo Foresi, drilling superintendent for Esso (Argentina) Inc., was in Houston completing the transaction for the company, an affiliate of the Standard Oil Company (New Jersey).

A 15-day ocean voyage on the SS "Buenos Aires" carried the first of the two rigs, the Continental-Emsco A-800, to its port destination of Bahia Blanca, Argentina. The second rig, the Continental-Emsco GC-500, left Houston about May 16.

Most of the major component parts were purchased from the same company and are interchangeable.

"Hot in summer, cold in winter, and windy," is the way Mr. Foresi described the rigs' future location in Argentina, Plaza Huincul.

Development and exploratory operations will occupy the A-800, capable of drilling to 13,000-14,000 ft., and the GC-500, capable of drilling to 8,500 ft.

All of the two rigs' 12 engines are interchangeable, greatly reducing the necessity for spare parts stockpiling.

Technical assistance in setting up the rigs and their operation will be furnished Esso Argentina by R. V. Atkinson, a Continental-Emsco sales and service engineer.

Continental-Emsco is furnishing technical assistance; however, the rig crews will be made up of Argentine personnel.

One of the rigs, the A-800, is partially trailer mounted while the GC-500 is completely trailer mounted. Masts for both have been built to withstand Argentine winds which sometimes reach 140 m.p.h.

Crewmen at the Houston Continental-Emsco Garden Villas plant set up and pre-tested the equipment before shipping.

Drilling rigs on their way to Argentina oil fields.

New Name for Agency

Persons-Beauchamp Advertising, Inc. is the new name for the agency group formerly known as The McCarty Company in Houston, according to Ed Beauchamp, president of the company. Officers and personnel of the organization remain unchanged. Howard Persons is Chairman of the Board and Hal Jones is vice president. The agency maintains offices at 2472 Bolsover in Houston, Texas.

Beauchamp stated that the name was changed to indicate the company's association with Persons Advertising, Inc. of New York City, of which Howard Persons is president. Both the Houston and the New York agencies were previously affiliated with The McCarty Company which headquarters in Los Angeles.

Contract Awarded for Petro-Chemicals Plant in Australia

Standard-Vacuum Oil Company announced recently that Fluor International S.A. had been awarded the prime contract for Stanvac's $28 million petrochemicals plant to be built at Altona, near Melbourne, Australia this year.

Associated with Fluor in the project will be Utah Australia Ltd., a subsidiary of Utah Construction Company of Salt Lake City. The two companies, with Fluor as prime contractor, will handle the engineering and construction of the key unit of a four-plant petrochemicals complex which was announced at Melbourne in January. The plant will supply high purity chemicals derived from petroleum for use by three other units which will produce polyethylene, styrene, and GRS synthetic rubber. The entire project represents some $50 million of investment in Australia's first large petrochemicals industry.

Vacuum Oil Company, Pty. Ltd., a subsidiary of Standard-Vacuum, will own and operate the new unit for which the Fluor-Utah group have been awarded the construction contract. Two of the other units represent Union Carbide and CSRC-Dow interests. The latter is jointly owned by Dow International and an Australian company —CSR Chemicals. The third unit, the GRS rubber plant, is to be built by Australian Synthetic Rubber Company, Ltd., a subsidiary of Vacuum.

The process design for Vacuum's key plant is being carried out in the United States. Engineering studies are already under way and it is anticipated that construction will begin in the final quarter of 1959 with completion scheduled for mid-1961. The plant's output will include approximately 20,000 tons of ethylene a year and the butadiene required for the manufacture of 30,000 tons of synthetic rubber.

SAS Jet Speed over Europe and the Middle East!

SAS adds jets to its regular service over Europe and the Middle East.

You depart daily, Global Express non-stop from New York, or one-stop from Los Angeles on the polar Route, to Copenhagen.

Direct connections on SAS Caravelle Jet Service speed you to important oil centers:

Cairo	Khartoum	Abadan
Athens	Damascus	Istanbul
Ankara	Teheran	Beirut
Basra	Bagdad	

SAS is fast—and luxurious, too, with Continental cuisine, spacious berths, and deluxe service for your utmost comfort.

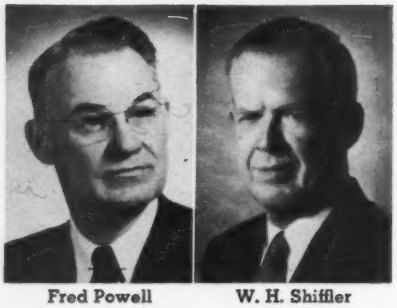
Stop over, for business or pleasure, at 17 extra cities, including London, Paris, Rome, Copenhagen. No extra fare on your SAS round-trip.

Take your family along, at Family Fare reductions. SAS arranges hotel reservations, car hire, pay-later plan.

See your Travel Agent or SAS

SCANDINAVIAN AIRLINES SYSTEM 607 West 6th St., Los Angeles 8929 Wilshire Blvd., Beverly Hills
Beverly Wilshire Hotel, Beverly Hills Phone: OLeander 5-8600 — OLympia 2-8600

Personalities IN THE NEWS



Fred Powell W. H. Shiffler

New Appointments in Chemical Field Announced by Standard

Appointment of **Fred Powell** to head up Standard Oil Company of California's activities in the chemicals field was announced recently by **G. L. Parkhurst,** Standard vice president and director.

Powell becomes president and chief executive officer of California Chemical Company, Standard subsidiary, with over-all responsibility for the parent company's chemical industry operations, with **W. H. Shiffler** named vice president. Both appointments are on a full-time basis. Parkhurst will continue to give part-time attention to the affairs of the management subsidiary as chairman of the board.

In his new position, Powell will coordinate the expanding activities of Standard's two chemical subsidiaries, Oronite Chemical Company, functioning in the industrial chemicals field; and California Spray-Chemical Corporation, which manufactures and sells agricultural chemicals.

Under the new organization headed by Powell, it is contemplated that Oronite and Calspray will function as subsidiaries of California Chemical, although retaining a high degree of autonomy. California Chemical will be particularly concerned with the expansion of Standard of California's chemical enterprises.

T. G. Hughes and **A. W. Mohr** continue as presidents of Oronite and Calspray, respectively, and as vice presidents of California Chemical. Powell, Hughes, Mohr and Shiffler will serve as the management committee of the latter company.

Sunray Advances Hill

J. Stanley Hill has been named supervisor of employee and public relations for Sunray Mid-Continent Oil Co.'s West Coast division, it has been announced by **John H. Douma,** vice-president and manager of the division.

Hill, who will continue to be based in the company's division offices in Los Angeles, previously was supervisor of employee benefits. The company's general employee and public relations departments are in Tulsa, Okla., and Hill will serve as West Coast liaison for these departments.

The new employee and public relations supervisor joined the company in 1947 and has been headquartered in the Los Angeles office continuously.

Svoboda Elected VP of Sunset

Harold Svoboda, manager of production, has been elected vice-president of Sunset International Petroleum Corp. Mr. Svoboda, who will continue to be in charge of all oil and gas production, joined the company as a petroleum engineer seven years ago.

He was previously employed by Union Oil Co. of California, Wasatch Oil & Refining Co. of Utah and Phillips Petroleum Co. of Bartlesville, Okla.

Mr. Svoboda has had extensive experience as a development engineer, manager of production and all other phases of land, drilling, exploration, development and evaluation.

Dodson at California Bank

Frank L. King, president of California Bank, Los Angeles, has announced the addition of **Charles R. Dodson,** vice president, to the staff of the bank's petroleum division located at the Sixth and Grand Office.

Well known throughout the petroleum industry, Dodson is a native of Washington, D.C.

Dodson's 24 years of experience related to the petroleum industry began with Standard Oil Company of California in 1936 where he was associated as a petroleum engineer. From 1947 to 1953 he was a professor and head of the petroleum engineering department at the Universiy of Southern California and a consultant to a number of companies.

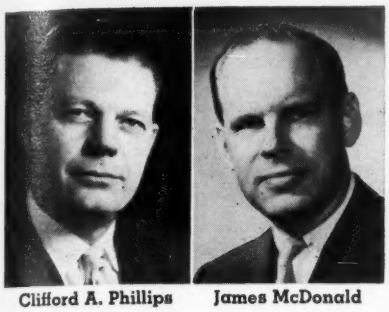
During the period 1951-1954, Dodson was a partner in the Los Angeles firm of Stanley, Stolz and Dodson, petroleum engineers and geologists. In 1954, Dodson became associated with the First National City Bank of New York as a vice president of the petroleum department.

Charles R. Dodson Bernhard Willach

Marsh Elects V.P. for Engineering

The election of **Bernard Willach** as vice president for engineering has been announced by Marsh Instrument Company of Skokie, Ill.

Willach has devoted a total of 33 years to the design of pressure gauges and similar instruments. During the past 17 years as chief engineer of Marsh Instrument Company he has made important contributions to the development of Marsh Pressure Gauges, Dial Thermometers, Refrigeration Instruments, Heating Specialties and other widely used Marsh products.



Clifford A. Phillips James McDonald

Tidewater Announces Major Appointments

Two major appointments in the Tidewater Oil Company which become effective July 1 were announced recently by **President George F. Getty II.**

James McDonald has been named assistant division general manager of Tidewater's Western Division embracing the seven western states and Hawaii, and **Clifford A. Phillips** has been selected to succeed McDonald as the petroleum firm's administrative manager of manufacturing.

McDonald, a native of Brooklyn, New York, joined Tidewater in 1940 as junior process engineer at the oil company's former Bayonne, New Jersey Refinery. He became technical assistant to the process superintendent in 1944, and three years later he was appointed assistant process superintendent.

In 1956 McDonald was named assistant manager of Tidewater's 130,000 barrel-a-day Delaware Refinery, then under construction, and in 1957 he became the oil firm's administrative manager of manufacturing.

Phillips came with Tidewater in 1950 as associate engineer at the former Drumright, Oklahoma Refinery. He served there successively as operating supervisor, project engineer and chief refinery engineer, transferring in 1955 to Tidewater's Delaware Refinery Project at C. F. Braun & Co. in Alhambra, Calif.

In 1956 he was named as area supervisor of the Desulfurization and Hydrogen Plants at the Delaware Refinery, and the following year he became that oil manufacturing center's superintendent of crude distillation, fluid coking and catalytic cracking.

Before coming with Tidewater, Phillips had been process and mechanical design engineer with Process Engineers, Inc.

Executive Promotions Announced

Black, Sivalls & Bryson, Inc. announces three executive promotions all effective July 1, according to **Kenneth W. Lineberry,** president.

Charles H. Myers, vice president and manager of the Oilfield Equipment Division, has been appointed industrial relations vice president. Serving in a staff capacity, Myers will work with division managers and subsidiary managers in the evaluation and further development of constructive industrial realtions and safety practices programs.

Floyd C. Myers, vice president and manager of Oilfield Sales and Service, has been appointed Houston vice president. He will serve in a staff capacity. Myers, with 29 years service, has been manager of Oilfield Sales and Service since 1954.

Paul Bartley, vice president and general manager of Black, Sivalls & Bryson, Ltd., Edmonton, has been appointed manager of the Oilfield Equipment Division, Oklahoma City. He will be responsible to the executive vice president for all operations of the division.

Odale Advances at Shell

O. L. Odale, production manager of Shell Oil Company's Denver Area for the past five years, has been named production manager for the company's Pacific Coast Area replacing **W. F. Bates,** it was announced recently by Vice President **S. F. Bowlby.**

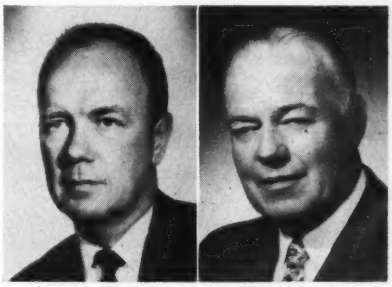
In his new position Odale will direct Shell's production activities in California and the Four Corners region.

He joined Shell in 1933 as a roustabout in Long Beach and subsequently served as junior engineer in Long Beach and division engineer in the San Joaquin Valley. He was promoted to senior mechanical engineer in Houston in 1938 and in the following year was transferred to Midland, Texas, as division mechanical engineer.

Following five years of military service Odale returned to Shell and served in various capacities in Texas and the company's New York offices before his assignment in 1953 to Denver as general superintendent. He was promoted to production manager in Denver the following year.

Petro-Chem Appoints Griffin Chief Engineer

John J. Griffin has been appointed Chief Engineer of Petro-Chem Development Co., Inc., it was announced by **John H. Wallis,** president of the company. Mr. Griffin, who has been associated with Petro-Chem since 1954, was formerly Manager of the Service Department. Prior to joining Petro-Chem Development Co., Inc., he had served as Chief Engineer with National Airoil Burner Co. in Philadelphia. In his capacity as a process heating specialist he has visited refineries and petrochemical plants throughout the world.



John J. Griffin Ole Berg, Jr.

Berg Elected Executive Vice President

G. A. Olsen, president of Sunland Refining Corporation, recently announced the election of **Ole Berg, Jr.,** as executive vice president of the Corporation, as well as a member of Sunland's Board of Directors.

Mr. Berg began his oil career with the Union Oil Company of California in 1921, remaining with that company in various positions until he became vice president.

In 1948 he resigned from Union Oil to join the British-American Oil Company, of which he became President in 1951, and was also President of the British-American Oil Producing Company with headquarters in Dallas, Texas. Mr. Berg was also a director of the Bank of Nova Scotia with branches throughout Canada.

Berg has been active in civic and petroleum organizations; is a past President of the Kiwanis Club of Portland, Oregon; a member of the Jonathan Club in Los Angeles; and a member of the American Petroleum Institute.

Mr. Berg and his wife, Margaret, will make their home in Fresno.

25 Years of Service with GP

A. E. Thompson marks 25 years of service with General Petroleum Corporation this month.

Thompson has been manager of General Petroleum's Torrance refinery since 1949. He joined the company as a junior inspector at Vernon after graduating with a chemical engineering degree from the California Institute of Technology. He advanced to the post of senior inspector in 1935, junior chemical engineer in 1936, senior chemical engineer in 1940, refinery engineer at Torrance in 1943, and was named assistant manager of the Torrance refinery in 1945.

He is a past president of the Torrance Chamber of Commerce and the Torrance Rotary Club, and is a member of the Palos Verdes Breakfast Club. He is active in the Community Chest, Red Cross, YMCA and Boy Scouts. He is a professional engineer, registered in the State of California.

Thompson will receive the commendation of the board of directors of General Petroleum and a diamond lapel emblem.

A. E. Thompson **Peter R. McArthur**

McArthur Joins Parsons Company

Peter R. McArthur has joined The Ralph M. Parsons Company, engineers-constructors of Los Angeles, it was recently announced by **Milton Lewis,** executive vice president. He will be responsible for business development in the petroleum, chemical, and petrochemical industries.

A graduate engineer, McArthur has been engaged for many years in a similar capacity and is well known in these fields.

Parsons is one of the country's largest firms providing engineering and construction services to the petroleum and chemical industries.

Dresser Appoints New Head For Security

John B. O'Connor, president of Dresser Industries, Inc., supplier of equipment, machinery, and technical services to the petroleum industry, recently announced the appointment of **John C. Helies** as president of Security Engineering Division. Security is a Dallas-based manufacturer of rock bits and down hole tools, with manufacturing facilities in Whittier, California, and Manchester, England.

Tidewater Announces New Supervisor Avon Refinery

Benjamin G. Jones has been appointed supervisor of the research section at Tidewater Oil Company's Avon Refinery near San Francisco, Oscar Larson, division manufacturing manager announced recently.

Jones previously held managerial and supervisory positions at Tidewater's Delaware Refinery as well as at Avon.

Shell Oil Company Purchasing-Stores Personnel Moves

Rex C. Hensel, manager, purchasing-stores has announced the following personnel changes: **Paul R. Stone,** formerly purchasing-stores supervisor coastal division, will be transferred to the Area Office staff as senior buyer effective July 1. **C. T. Lindley,** formerly storekeeper coastal division, will succeed Stone at Ventura.

Shell Chemical at Torrance: Manager of purchasing-stores is **G. Clay Ford. J. R. Dineen** will be assistant manager. **G. W. Ray** and **R. P. Anderson** are buyers.

Shell Chemical, Dominguez: **C. H. Larrison** is purchasing-stores supervisor; **M. C. Hartwell,** storekeeper.

Shell Chemical at Ventura: **D. A. Linhares** is purchasing-stores supervisor and **L. F. Dollar** is buyer.

Shell Oil Company, Wilmington refinery: **G. A. Shahan** is manager purchasing-stores with **J. W. London** assistant manager. **J. R. Cameron** and **L. G. Bruns** are buyers and **Leroy Swetman** is office supervisor.

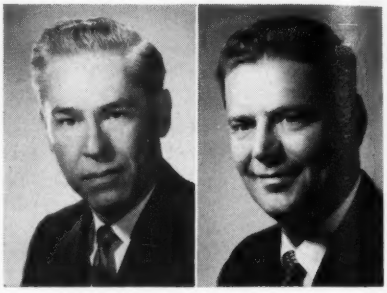
In Long Beach, **Milo W. Dimock** is office supervisor for the Los Angeles Basin Division production purchasing-stores.

The above personnel moves are part of the decentralization policy recently inaugurated by Shell Oil Company.

Foster Joins Pipe Linings

Forest E. Foster has been made a special salesman to the oil industry, by Pipe Linings of Wilmington, California, according to announcement by **V. L. (Jim) Greedy,** sales manager.

Foster has been working regionally as salesman to the oil industry since 1956, when he joined Pipe Linings, coming from American Pipe and Construction Company by whom he was employed since graduation from USC in 1953.



Kerby Gee **John Miner**

New Duties for Three at Lane-Wells

Kirby Gee, Jas. D. Hughes, and **John Miner** have been assigned new responsibilities in Lane-Wells Company, one of the Dresser Industries, according to **John J. Neale,** president. Gee, formerly vice-president in charge of operations, has been appointed to the newly created post of executive vice-president. Hughes, vice-president in charge of sales has been named special assistant to the president. Miner has been appointed vice-president in charge of foreign sales exploitation.

Kirby Gee was president of the Elgen Corporation from its inception in 1953 until that company merged with Lane-Wells in 1958. He been intimately connected with electrical logging and service company operations for twenty years.

Hughes has been associated with Lane-Wells for eighteen years, serving successively as sales engineer, division sales manager, general sales manager, and vice-president, sales.

John Miner comes to Lane-Wells from Petro-Tech Service C.A. in Venezuela. He joined Petro-Tech in 1947, when it was founded, and served that company in almost every position from operator to president. Before going to South America he was with Lane-Wells in California.

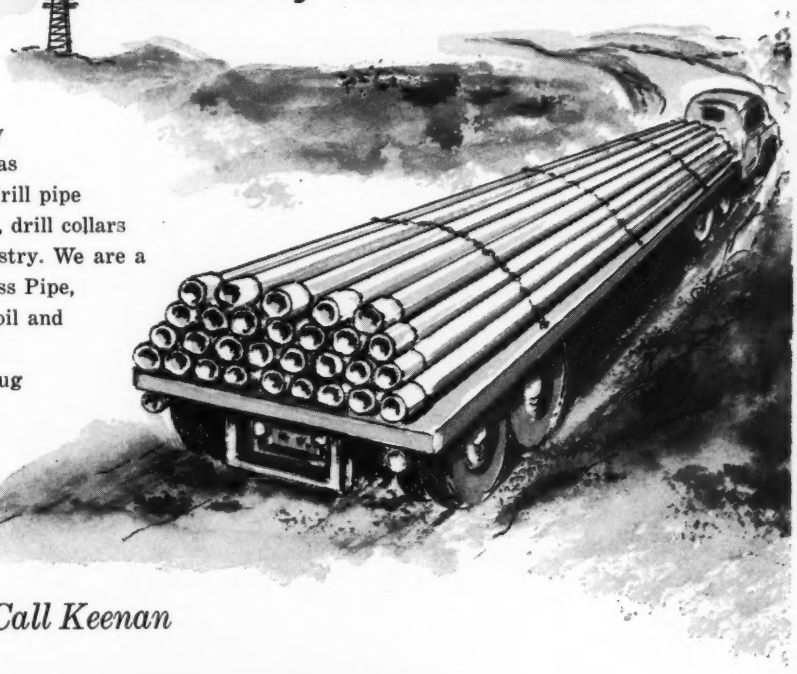
It pays to count on

KEENAN

whenever you need

National Tube Division of USS United States Steel

Oil Country Tubular Products



Keenan stocks substantial inventories of National Oil Country Tubular Products and in addition has available drilling bits, tool joints, drill pipe protectors, casing shoes and collars, drill collars and allied products for the oil industry. We are a leader in the distribution of Stainless Pipe, Valves and Fittings. Other quality oil and industrial lines matched by Keenan Service are Walworth lubricated plug valves and other products, Ladish's complete line of carbon, stainless and alloy welding fittings, Consolidated relief valves and Hancock forged steel valves.

Need something fast?...Call Keenan

KEENAN PIPE & SUPPLY CO.

LOS ANGELES, 2112 East 27th St.

PIPE • VALVES • FITTINGS • OIL AND INDUSTRIAL SUPPLIES

BAKERSFIELD	NORTH HOLLYWOOD	POMONA	DENVER	PHOENIX	TUCSON	LAS VEGAS
633 Williams Street	11211 Chandler Blvd.	450 West Commercial St.	4700 Dahlia St.	214 South 14th Street	First and Broadway	831 West Bonanza Road

INTERNATIONAL GUESTS AND SPEAKERS at the June 10, 1959 meeting of the Los Angeles Chapter of Nomads. Left to right (front row) Ed Abbott of Bechtel Co. from Bahrein Island; Perry Owings of I.P.C. from Iraq; Fred Gholson of I.P.C. from Iraq; Mrs. Irene Ryan, speaker, from Alaska; Klaus Wolf of FAGRO from Germany; Bill Killingsworth of I.P.C. from Kirkuk; Jose Owens of ENAP from Chile; (middle row) Harry H. Crooke of Petrobras from Brazil; Dick Abbott of Baker Transworld from Venezuela; Gene Cox of D & E from Brazil; S. Sadighi of Nat. Iranian Oil Co. from Iran; John E. Ryan of Oil Well Supply & Service Co. from Alaska; Maxwell Burgett of Camay Drilling from Libya; W. C. Boudreau of American Airlines, speaker; (back row) C. E. Batien of Q.P.C. from Qatar; G. J. Stanford of Petrobras from Brazil; Fred Peveto of I.P.C. from Iraq; R. E. Steele of Santa Fe Drilling, foreign staff; Kent O. Garner of Santa Fe Drilling, from London; Hal Fullerton of Santa Fe Drilling, foreign representative; Herschel W. Flock of Santa Fe Drilling from Libya; William T. Knight of Camdrill from Libya.

Desk and Derrick Clubs Hold Regional Meeting

One hundred and fifty-three women engaged in the oil industry on the West Coast and British Columbia gathered for a two-day Regional Meeting in Long Beach at the Lafayette Hotel June 13 and 14. Hostess of the conclave was the Desk and Derrick Club of Long Beach, Mrs. Leta Donkle, president. Mrs. Jean Brauns, Long Beach, acted as chairman of the Regional Meeting committee.

West Coast Regional Director, Mrs. Ann Donley of Taft, California, presided at the business sessions and panel discussions. Southland women who played an active part were Hazel M. Corcoran, Virginia B. Culver, Lee Gill, Zetta Belle Gregg, Lois Lewis, Birtiemae Hook, Kay Livada, Patricia Richardson and Margaret Rowland.

Miss Harriet Gregath of Los Angeles, first vice-president of the Association of Desk and Derrick Clubs of North America (over 8,000 members) was the speaker at Saturday night's banquet. A petroleum version of the Miss Universe pageant entitled "Miss Oil-Y-Verse" was the humorous entertainment furnished by the Long Beach Club following the dinner.

Nomads Whing Ding

Starting with a golf tournament, the Twentieth Annual Whing Ding of the Los Angeles Chapter of Nomads will be held at the Lakewood Country Club in Long Beach, Friday, July 17th. Following a banquet at 7 p.m., prizes for prowess in golf and luck in holding winning dinner ticket numbers will be awarded with a blonde cutie passing out the prizes. Then will come an elaborate floor show which will feature comedy and beauty. This show will surpass the one last year—which was a dilly.

During the afternoon while a social hour is in progress, a lovely accordionist will play and sing. Barber-shop harmony will then run rampant but will not disturb the friendly card games in progress.

Tom Ashe of Globe Oil Tools Company, president of the Los Angeles Chapter of Nomads, will be on hand all day and evening to greet all present. Many international oil men will be guests of the Chapter.

Andy Anderson of Pacific Perforating Company is general chairman of the Whing Ding Committee. Chili Sutton of Oilwell Mfg. Company is in charge of golf and will have helping him Shorty Bowen of the Martin-Decker Corporation, Knight Templeton of Bowen ITCO, Max Martin of H. C. Smith Oil Tool Company, and Glen Horrie of McCullough Tool Company. The Golf Tournament starts at 8 a.m. and the last tee-off will be at 1:30 p.m. Duplicate prizes in the Golf Tournament will be awarded Nomads and guests, based on the usual handicap system used by the Nomads in the past.

NEW MEMBERS—Shown between Taylor Bannerman of Technical Oil Tool Corp., Ritual Master (left) and Lee Laird of Ladish Co., Assistant Ritual Master (right) are new members of the Los Angeles Chapter of Nomads who were inducted at the June 10, 1959 meeting of the Chapter. (left to right) John Cochran of Driltrol, Regular; Neal Thompson of Ken Corp., Regular; Louis Smith of Chiksan Co., Regular; Bob Thompson of Servco Corp., Associates; Joe Douglass of Gardner-Denver Co., Regular; and Clayton Rose of Monarch Engineering Co., Regular.

C. S. Perkins

Purchasing Agents' Assn. Installs New Officers

Charles S. Perkins, manager of purchases for Union Oil Company of California, was installed as president of the Purchasing Agents' Association of Los Angeles on June 11 to serve for the year beginning July 1.

The Association, the third largest chapter in the National Association of Purchasing Agents, has approximately 1100 members representing 696 companies in Southern California.

Perkins, who has been with Union Oil for 33 years, was named manager of purchases in 1953.

Elected to serve with him were the following officers and directors: First vice president, William Broker, purchasing agent for Gough Industries, Inc.; second vice president, W. O. Hokanson, manager of purchases, Noland Paper Company, Inc.; secretary, Harlan Eastman, corporate purchasing administrator, Beckman Instruments, Inc.

Directors include: Rex C. Hensel, manager, purchasing and stores, Shell Oil Company; Victor Quam, chief deputy purchasing agent, County of Los Angeles; A. R. Hooker, Jr., division purchasing agent, The Flintkote Company, and C. R. Raftery, director of Material Autonetics, a division of North American Aviation, Inc. Frank T. Henry, vice president-purchasing, Arden Farms Co., was elected national director.

Pipeline To Be Moved

Following announcement by the U.S. Corps of Engineers that a contract for construction on the long-delayed Carbon Canyon Dam had been awarded, Southern Counties Gas Co. has moved ahead with plans to relocate 2,600 feet of the gas company's Texas pipeline.

The relocation of the natural gas pipeline will enable the vital supply artery to skirt the site of the dam. Contract has been awarded to Macco Corp.

The project will cost approximately $93,000, for which the gas utility will be reimbursed by the federal government.

Carbon Canyon Dam is a key project in Orange County's over-all flood control program.

Petroleum Accountants Elect New Officers

The Petroleum Accountants Society of Los Angeles has elected the following officers and directors to serve for the year ending May 31, 1960:

Officers and directors—president, S. H. Durkee, The Superior Oil Co.; vice-president, C. W. Pierce, Monterey Oil Co.; vice-president, G. D. Campbell, General Petroleum Corp.; secretary-treasurer, W. F. Crooks, General Exploration Co. of California.

Directors—C. D. Signorelli, Tidewater Oil Co.; C. W. Patterson, Standard Oil Co. of California, Western Operations, Inc.; J. F. Duncan, Shell Oil Co.; W. W. Gamel, Richfield Oil Corp.; W. C. Nero, Union Oil Co. of California.

L. A. Desk & Derrick Installs Officers

Miss Louise Schock was installed as President of the Desk and Derrick Club of Los Angeles on June 16th at the Biltmore Hotel. The Desk and Derrick Club of Los Angeles is a chapter of the Desk and Derrick Clubs of North America, an educational organization composed of women employed in the petroleum and allied industries.

Miss Schock is a secretary in the Pacific Coast Exploration and Production Area office of the Shell Oil Company and has served Desk and Derrick in various capacities since joining the club in 1952.

Other officers installed by Mrs. Ann Donley, Regional Director Desk and Derrick Clubs of North America, are as follows: M. Evelyn Lewis, R. J. Eiche & Associates, Inc., First Vice President; Winifred C. Marsh, Standard Oil Company of California, 2nd Vice President; Nancy E. Poynor, Gilliland Oil Company, Recording Secretary; Charlotte B. VeDel, Shaffer Tool Works, Corresponding Secretary; Harriet Bohning, Tidewater Oil Company, Treasurer; Ann Delporte, Pathfinder Petroleum Company, Helen Holt, Signal Oil and Gas Company, Isabelle Hill, Union Oil Company of California, and Ruth Usher, Palmer Publications, Directors.

Desk and Derrick Club of Los Angeles officers installed June 16, 1959 were, (seated) left to right: Nancy E. Poynor, recording secretary; Louise H. Schock, president; Winifred C. Marsh, second vice president; Charlotte B. VeDel, corresponding secretary. (Standing) left to right: Ann Delporte, Helen Holt, directors; Lois Lewis, immediate past president; Isabelle Hill and Ruth Usher, Directors. Missing: M. Evelyn Lewis, 1st vice president and Harriet Bohning, treasurer.

Field Development

Pacific Coast and "4" Corners

LOS ANGELES BASIN

Imperial County Test

In the Yuha Basin area, de Anza Oil Company, Ltd. has awarded a contract to Wm. Stava Drilling Co. to drill USL-FGW-de Anza No. 1, a shallow wildcat test located in the northeast quarter of Section 19-17s-11e. The location is about two miles north of the Mexican border.

Riggs Ranch Test for Atlantic

Approximately one mile north of the Holser Field, Atlantic Oil Co. is starting Riggs Ranch No. 1 in the northeast quarter of Section 11-4n-18w in Ventura County. The well, a comparatively shallow test, will be bottomed in approximately 3000 feet.

Chino-Mahala Test

In San Bernardino County, Euclid Petroleum Co., Inc., is drilling Euclid No. 2 located in the northwest quarter of Section 7-3s-7w. The test is approximately 2000 feet east of production and 650 feet west of its Euclid No. 1 abandoned at a depth of 1400 feet.

Del Valle Well Redrills

Union Oil Co. is cleaning out on Barnes No. 8 and will redrill and deepen from its present depth of 6570 feet. Located in the southwest quarter of Section 16-4n-17w, the well was originally drilled and completed by R. E. Havenstrite, Operator.

Christiana Interest Sold

The Capital Company has purchased from Christiana Oil Corp. its forty percent interest in the 7800-acre Diamond Bar Ranch in Brea Canyon and all of Christiana's producing properties in the East Coyote and Long Beach fields. The oil properties were acquired by Christiana from Bartholomae Oil Corp., original developers. The deal was for $4,853,000 cash.

Beverly Hills Core Hole Abandoned

Hudson Gas & Oil Corp. abandoned Core Hole-L. A. Country Club No. 1 located in Section 14-1s-15w at a total depth of 1990 feet. Locations previously staked for Core Holes No. 2 and 3 have been abandoned.

Capistrano Test Abandoned

Humble Oil & Refining Co. abandoned O'Neill Estate No. 1 in Section 26-7s-7e at a total depth of 2100 feet.

Culver City Test

Continental Oil Co. is all set to start its first test on the M.G.M. Studio property after being granted a permit and zone variance by the Culver City Council. Location for the first test will be east of Overland Avenue between Washington and Culver Boulevards in Section 12-1s-15w. Continental Oil Co. has approximately 800 acres under lease surrounding the well site.

New Operator at Beverly Hills

Allen Guiberson has secured a lease on the Beverly Hills High School property consisting of 27 acres and is expected to spud in the first part of July. The property is east of the 20th Century Fox Studio property, offsetting the Universal Consolidated Oil Company production on the Fox lot. The lease was reportedly made on a 50 percent royalty basis plus a $50,000 bonus.

Third and Fairfax Test

Gilmore Company has received a permit for a well to be drilled near Third St. and Fairfax Ave. The Gilmore property is bounded by Fairfax, Third Street, Gardner and Beverly Blvd.

Torrance Test Abandoned

Ira Gershwin & Associates abandoned McHenry No. 3 in Section 23-4s-14w near the intersection of Narbonne and 231st Street. Drilled to a total depth of 5601 feet, a test of the lower section of the hole recovered water.

Castaic Test Abandoned

The Ohio Oil Co. has abandoned Romero No. 1 located in the northwest quarter of Section 21-5n-17w, 2½ miles northwest of the Castaic Hills production, at a total depth of 3048 feet.

Wilmington Injection Wells

Producing Properties, Inc., is starting two water injection wells on Section 1-5s-13w, near the intersection of Seaside Blvd. and Chestnut Place.

SAN JOAQUIN VALLEY

Mount Poso Abandonment

Ralph R. Whitehill's Well No. 1, a Vedder Sand test located near the west quarter corner of Section 34-27s-28e, drilled to 1853 feet and was abandoned with no shows reported. This test was in the Baker-Grover area of Mount Poso, and was an offset to the recently completed Bishop Oil Company's Murdock No. 2.

Jasmin Test Abandoned

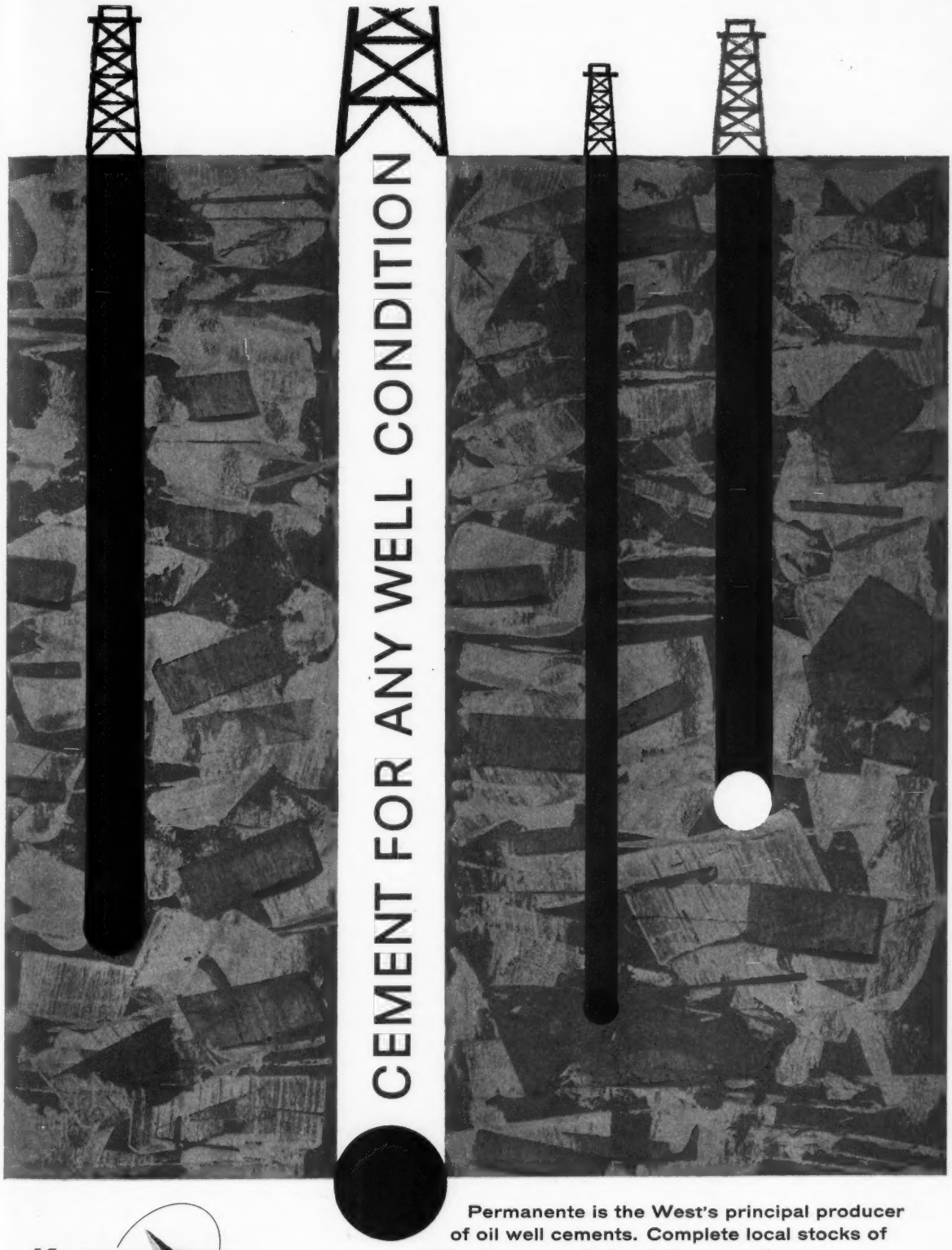
Pacific Oil & Gas Development Corp.'s second test of the recently discovered Famosa Sand pool failed to log the oil sand and was abandoned at a total depth of 4210 feet. The test was located in the northeast quarter of Section 30-25s-27e two locations northeast of the discovery well. Pacific Oil & Gas and Western Gulf Oil Co. each own an undivided 50 percent interest in the leases surrounding the well.

Rio Bravo Test Abandoned

Union Oil Co. abandoned Kernco No. 25X-26, an outpost test, at a total depth of 6600 feet. Location of the test was near the west quarter corner of Section 26-28s-25e.

Guijarral Hills Completion

Sunray Mid-Continent Oil Co. deepened and recompleted Allison No. E-83-34 on the gas lift flowing 150 b/d of 30 gravity oil cutting 1.5 percent through a 48/64" bean. Located in the



KAISER Permanente CEMENT

Permanente is the West's principal producer of oil well cements. Complete local stocks of all types are ready for delivery anytime.

PERMANENTE CEMENT COMPANY

Kaiser Building, Oakland, California • National Oil Bldg., 609 So. Grand, Los Angeles, California

northeast quarter of Section 34-20s-16e, the well was first completed by the Barnsdall Oil Co. from a depth of 8275 feet and deepened by Sunray to its present depth of 10,335 feet. The well is producing from the perforated interval 10,308-10,253 feet.

Round Mountain Test Abandons

Finding both the Jewett and Vedder Sands non-productive, Citizens Oil Company abandoned S. P. No. 2 at a total depth of 2890 feet. The test was located near the west quarter corner of Section 23-28s-28e.

San Emidio Nose Completion

Richfield Oil Corp. completed KCL-H No. 41-9 located in the northwest quarter of Section 9-11n-21w flowing 610 b/d of 30 gravity oil cutting 1.5 percent through a 17/64" bean. Drilled to a total depth of 12,598 feet, 7" casing is cemented at 11,028 feet. A 5" liner with conventional perforations from 12,450-12,590 feet was landed at 12,590 feet and then jet perforated at intervals from 11,478-12,020 feet.

Midway-Sunset Well Deepening

Gene Reid Drilling, Inc. is drilling ahead below 4800 feet on Havenstrite No. 1 located in the northeast quarter of Section 17-11n-23w. The well, originally completed by Reservoir Hills Gasoline Co. in 1929 flowing 2800 b/d oil from a depth of 3351 feet, will be drilled to approximately 5500 feet for a test of the Leutholtz Sand.

Edison Test Abandoned

Intex Oil Co. logged no productive Vedder Sand at 6288 feet and abandoned Intex-South Penn-Wilson No. 14-28 at a total depth of 6528 feet, in Basement. Location of the test was near the west quarter corner of Section 28-30s-29e.

San Benito County Test Quits

Neaves Petroleum Developments' Vallecitos test, Neaves-Vallecitos No. 3 located in the northwest quarter of Section 17-17s-11e, drilled to a total depth of 3819 feet and after running an electric log, was plugged and abandoned.

Merced County Gas Test

Richfield Oil Corp. has completed grading roads and rig site for Ferreira No. 1, a wildcat test located in the southeast quarter of Section 26-6s-9e, approximately nine miles southwest of Turlock.

Belgian Anticline Test

Getty Oil Co. is grading location for M & M-A No. 33, a proved field well, in the northwest quarter of Section 30-30s-22e. The test will be drilled to approximately 7000 feet.

Coles Levee Completion

Richfield Oil Corp. completed C.L.-A No. 52-31 flowing 161 b/d of 33.7 gravity oil cutting 2.6 percent through an open bean. The well was drilled to a total depth of 9060 feet and cemented 7" casing at 8750 feet and ran a 5" liner perforated at intervals to 9058 feet. The well is located in the northeast quarter of Section 31-30s-25e.

Devils Den Extension Test

Gilliland Oil Co. is drilling below 1100 feet on West Estate Core Hole No. 1 located in the southeast quarter of Section 3-25s-18e, 1200 feet west of production.

Kings County Gas Test

In the Dudley Ridge area, Jacalitos Petroleum Co. drilled to 1264 feet on Well No. 3-14 and is perforating a 2⅞" tubing, cemented on bottom, for a gas test. Location of the well is in the northeast quarter of Section 14-23s-19e.

Comanche Point Test Abandoned

Texas Meat Brokerage, Inc. drilled to a total depth of 3039 feet on their Tejon No. 1-4 and after running an electric log was plugged and abandoned. The test was located in the northeast quarter of Section 4-11n-18w, approximately two miles northwest of the Tejon Hills Field.

Two Completions for Humble

Humble Oil & Refining Co. has completed two wells in the Rosedale Field. Hugh S. Allen No. 2, located in the northeast quarter of Section 23-29s-26e, was completed pumping 15 b/d of 26.5 gravity oil cutting 4.0 percent through the perforated interval 4833-4817 feet. The well was drilled to a total depth of 5198 feet. Well KCL-G No. 5 located in the southeast quarter of Section 14-29s-26e, was completed flowing 175 b/d of 26 gravity clean oil through a 3/16" bean with 1000 psi flow pressure. Total depth is 5265 feet with 4½" casing cemented at 4981 feet and perforated from 4876-4867 feet.

Trico Gas Test

Harry H. Magee, Operator, is grading location for Tulare Investment No. 1, a proved field well in the Trico Gas Field. Location of the well is in the northeast quarter of Section 11-25s-23e.

Tejon Test for Reserve

In the North Tejon area, Reserve Oil & Gas Co. is grading location for Reserve-Dunlavy No. 125-20 in the southwest quarter of Section 20-11n-19w. Miller & York has the contract to drill this 7500 foot Olcese test.

Wheeler Ridge Outpost Test

Reserve Oil and Gas Co. is grading location for R-S-T No. 66-30 located in the southeast quarter of Section 30-11n-19w. The well will be a JV Sand test with an approximate depth of 9100 feet.

Buena Vista Hills Completions

Standard Oil Co. completed Well 26N No. 514, a proved field well, pumping 267 b/d oil cutting 0.1 percent and 38 mcf of gas. Located in the southwest quarter of Section 26-31s-23e, the well was drilled to a total depth of 5030 feet and cemented 7" casing at 3977 feet.

Tidewater Oil Co. completed Well No. 556 flowing 404 b/d of 30 gravity oil cutting 0.1 percent through an 18/64" bean with a flow pressure of 325 psi. Gas was gauged at 190 mcf. Located in the southeast quarter of Section 20-31s-23e, the well was drilled to a total depth of 5695 feet and plugged bottom back to 5585 feet. 7" casing is cemented at 5230 feet.

McDonald Anticline Completion

Perguson and Bosworth completed Layman No. 34 pumping 50 b/d of 40 gravity oil cutting one percent. Total depth of the well is 3937 feet, plugged back to 3585 feet. 7" casing is cemented at 3495 feet and a 5½" perforated liner landed at 3585 feet. Location of the well is in the southeast quarter of Section 18-28s-20e.

NORTHERN CALIFORNIA

Sacramento County Test Abandons

Intex Oil Company, after running electric log, dipmeter and sonic log, abandoned Intex-South Penn-Wurster No. 1 at a total depth of 4500 feet. The test was located in the center of the southwest quarter of Section 27-6n-4e.

McDonald Island Gas Test

Natural Gas Corp. of Calif. is grading location for Tilden Community No. 2 located in the southwest quarter of Section 31-2n-5e in San Joaquin County.

Solano County Gas Blowout

G. E. Kadane & Sons, Standard-Suisun-Community No. 10 blew out of control while drilling at 1024 feet resulting in the dropping of part of the drilling equipment into the crater. Although the hole is still making some gas, the contractor is trying to salvage the equipment. Location of the test is in the southwest quarter of Section 31-4n-1w.

Two Gas Tests for Brown

E. C. Brown, Operator, has announced locations for two southeasterly extension tests of the River Island Gas Field. Location for R. D. Graham No. 1 is in the southeast quarter of Section 33-4n-4e, Sacramento County, and Staten Island Land Co. No. 1 will be drilled in the northeast quarter of Section 4-3n-4e in San Joaquin County. Mr. Brown is the founder of the Brown Drilling Co. and has a San Francisco office at 348 Russ Building.

Beehive Bend Completion

R. W. McBurney, Operator, completed Westpet-Sunray-McBurney No. 29-3 as a dual completion flowing 13,000 mcf of gas through an 11/64" bean. Located in the southwest quarter of Section 29-20n-2w, the well was drilled to a total depth of 6000 feet and cemented 5½" casing at 5850 feet. Casing is perforated at intervals from 5565 to 3587 feet. This well is a joint operation, with Western Petroleum Co. having a 50 percent interest, Sunray Mid-Continent having a 25 percent interest and McBurney a 25 percent interest.

Colusa County Test for Trico

Trico Oil & Gas Company is drilling below 4500 feet on Zumwalt No. 1 located in the northwest quarter of Section 12-14n-2w. The test falls approximately four miles northwest of the Arbuckle Gas Field and will be drilled to about 7200 feet.

Intex Gas Test Abandons

Intex Oil Co. abandoned its Contra Costa County wildcat gas test, Intex-South Penn-Delta Properties No. 1 at a total depth of 5132 feet. The test was located in the northwest quarter of Section 7-2n-3e on Jersey Island, three miles southwest of the Rio Vista Gas Field.

Solano County Test Quits

Kern Oil California Limited abandoned Stewart No. 1 located in the southwest quarter of Section 7-4n-1e, two miles northeast of the Kirby Hills Gas Field, at a total depth of 4627 feet. A formation test of the interval 3894-3997 feet recovered 3890 feet of salt water.

Three San Joaquin County Tests

In the Vernalis area, Porter Sesnon et al and Great Basins Petroleum Co. have announced locations for three

Whatever your pipe slotting needs . . . .
Pacific
will deliver the precise cut and pattern you require
Maximum oil recovery requires perforated pipe of accurate design and maximum precision in the slotting operation. Pacific's slotting process produces clean uniform slots that assure a full even flow — Fine-gauge, Straight and Keystone slots in patterns to your specifications.
With Pacific slotted and threaded pipe in your well, you attain greater efficiency and gain a greater return on your investment.
Be Specific - - Call Pacific
for complete one stop service
Pacific PERFORATING CO., Inc.
Main Office and Plant: Torrance, California FAirfax 8-6787 · NEvada 6-5789
For Prompt, Efficient Service In
Bakersfield FAirview 2-4390
Ventura Miller 3-5859
Taft Roger 5-4426
Coalinga Coalinga 5-J

wells. Mohawk-Baltzen-Hunter No. 76-16 will be drilled in the southeast quarter of Section 16-3s-6e and Sesnon-Vernalis Unit 7 No. 42-27 will be drilled in the northwest quarter of Section 27-3s-6e. Both are field wells and will be bottomed at approximately 4200 feet. A wildcat test, Sesnon-Vernalis Unit 8 No. 74-33, a 5200 foot test, is drilling below 3000 feet. This well is in the northeast quarter of Section 33-3s-6e, approximately 1½ miles southwest of the Vernalis Gas Field.

Walnut Grove Gas Test

Brazos Oil and Gas Co. is starting Locke Unit One No. 1 located in the southeast quarter of Section 26-5n-4e. The well, a northeasterly test, will be drilled to around 8500 feet. Brown Drilling Co. has the contract.

Wild Goose Gas Test

Bayshore Oil Co. is starting to drill White-Mallard No. 1-18, a 3500 foot test located in the southwest quarter of Section 18-17n-1e in Colusa County. This test is 3000 feet west of the Wild Goose Gas Field. Kruse Drilling Co. has the drilling contract and Tom Fitzgerald is the engineer.

River Island Test Abandoned

Standard Oil Co. has plugged and abandoned Borba Community No. 6 after drilling to a total depth of 5700 feet. The test was located in the southwest quarter of Section 18-4n-4e in Sacramento County.

Rio Vista Test Abandoned

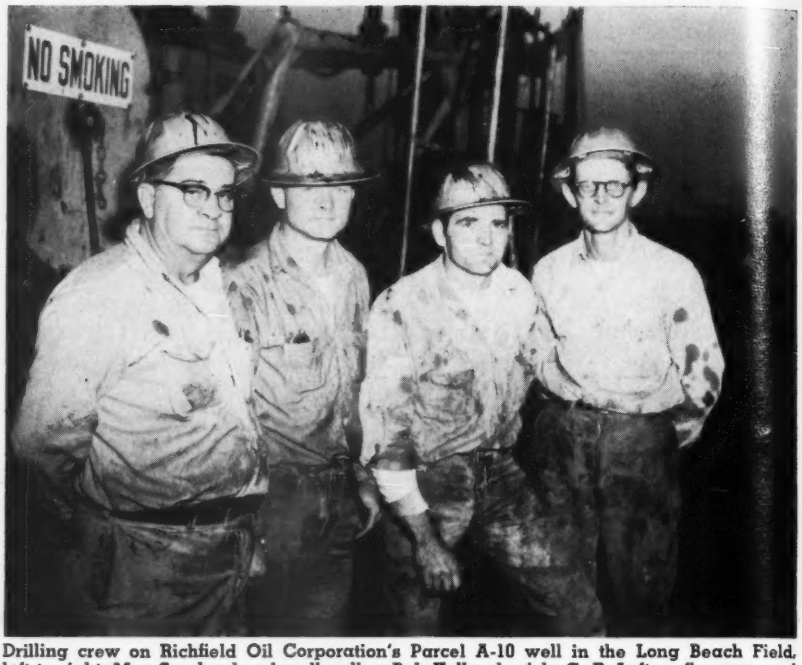
In Solano County, Kern County Land Company, after running logs and taking sidewall samples, abandoned KCY-Floto No. 1-25 at a total depth of 4889 feet. The test was located in the southeast quarter of Section 25-3n-3e, three miles southeast of the Rio Vista Gas field.

Solano County Abandonment

McCulloch Oil Exploration Co. of Calif., Inc. abandoned its Potrero Hills wildcat, Macson-Scally No. 1 at a total depth of 9020 feet in Cretaceous. Top of the Cretaceous was placed at 3500 feet. Location of the well was in the northeast quarter of Section 10-4n-1w.

Vernalis Field Tests

Standard Oil Co. has staked locations for two tests in the Vernalis Field. Blewett Community No. 7 will be drilled in the northwest quarter of Section 25-3s-6e and Blewett Community No. 8 in the southwest quarter of Section 23-3s-6e.



Drilling crew on Richfield Oil Corporation's Parcel A-10 well in the Long Beach Field, left to right: Max Souder, head well puller; Bob Kelly, derrick; G. R. Loften, floorman and Tom Tucker, floorman.

Petaluma Well Suspends

C. H. Chamberlin drilled to 1703 feet on Mangel No. 2 and has suspended operations. Located in the northeast quarter of Section 30-4n-5w, about eight miles southeast of the Petaluma field, in Sonoma County, the well was originally drilled to a depth of 1214 feet and abandoned in 1958. The test is presently bottomed in gray shale.

COASTAL AREA

Ventura County Wildcat

In the Moorpark area, Kern Oil California Limited is grading location for Williams No. 1 located in the northeast quarter of Section 33-3n-19w. The test will be drilled to approximately 5000 feet and is 500 feet easterly from Williams No. 1A drilled by Robert S. Lytle in 1956 which produced, on the initial test, 50 b/d of 24 gravity clean oil from the interval 4381-4250 feet.

Oxnard Completion For Standard

Standard Oil Co. completed Security First National Bank No. 2 flowing 310 b/d of 34 gravity oil cutting 0.3 percent through a 12/64" bean and 334 mcf of gas. Flow pressure was 550 psi. Located in the northeast quarter of Section 14-1n-22w, the well was drilled to a total depth of 11,029 feet and redrilled to 9050 feet. 7" casing is cemented at 8800 feet and 250 feet of zone is open to production.

Newberry Park Test Abandoned

The Superior Oil Co. abandoned Janss Community No. 1 located in the northwest quarter of Section 6-1n-19w. Drilled to a total depth of 6015 feet, an electric log was run before abandoning.

Ventura County Test

Eddie Fisher has staked a location in the Triunfo area for Triunfo-F.G.W. No. 1 in the northeast quarter of Section 24-1n-19w. This will be a Sespe test and will be drilled to approximately 3100 feet.

South Mountain Completion

Shell Oil Co. completed Saticoy No. 15 flowing 402 b/d of oil cutting 22 percent. Flow was through a 24/64" bean with pressures of 750/1100 psi. Located in the southeast quarter of Section 15-3n-19w, the well was drilled to a total depth of 9338 feet and cemented 7" and 5½" casing at 9190

feet with perforations from 9333-9210 and 9075-8910 feet.

El Rio Test Abandoned

Western Gulf Oil Co. has abandoned Grubb No. 1 at a total depth of 12,012 feet. Logs were run but no tests were made before final abandonment. Location of the test was in the southeast quarter of Section 22-2n-22w.

Rincon Island Completion

Richfield Oil Corp. completed State 1466 No. 22 flowing 97 b/d of 29.7 gravity oil cutting 0.6 percent through a 10/64" bean and 19 mcf of gas. Located offshore in projected Section 13-3n-25w, the well was drilled to a total depth of 3140 feet and plugged back to 2938 feet. 8⅝" casing is cemented at 2783 feet.

South Mountain Tests for Humble

Humble Oil & Refining Co. has staked locations for three wells on the Ray R. Sence et al property. All three wells, numbers 31, 32 & 33, will be drilled in the southwest quarter of Section 30-3n-20w.

Shiells Canyon Extension

Humble Oil & Refining Co. is preparing to complete Cora Saviers et vir No. 1 on Section 9-3n-19w approximately ⅞ mile south of Shiells Canyon production. Drilled to a total depth of 7043 feet, 4½" casing was cemented at 6511 feet.

OTHER STATES

UTAH

Alamo Corporation of Lubbock is preparing to spud Alamo-White River No. 3 located in the northwest quarter of Section 25-8s-22e in Uinitah County. The well will be drilled to approximately 10,800 feet for a test of Mesaverde and is six miles southwest of the Red Wash Field.

In San Juan County, The Superior Oil Co. has graded location for Navajo-L No. 41-15 in the northeast quarter of Section 15-42s-26e. The test is five miles southwest of the Marble Wash Field and will be drilled to approximately 6100 feet to test the Paradox.

ARIZONA

The Arrowhead Oil and Gas Company, and Besoyan Brothers of Fresno are moving in equipment to drill State No. 1, a 2500 foot test located in the northeast quarter of Section 28-18n-20e approximately four miles west of Holbrook in Navajo County.

Pan American Petroleum Corp. has abandoned N. Mexico & Arizona Land & Cattle Co. No. B-1 at a total depth of 4497 feet. Location of the test was in Section 25-12n-23e, about twelve miles east from the townsite of Taylor in Navajo County.

ALASKA

Union Oil Company and The Ohio Oil Co. are drilling below 6500 feet on their joint test, Union-Ohio-Kenai Unit No. 1. The test is located six miles south of the town of Kenai on Section 6-4n-11w.

Standard Oil Co. and Richfield Oil Corp. are preparing to run and cement 7" casing at approximately 11,450 feet on Swanson River Unit No. 4A. Located in Section 16-8n-9w, the well has a total depth of 12,582 feet and a redrilled depth of 11,460 feet.

The State of Alaska has completed plans to offer the waters of Cook Inlet as well as Wide Bay on the Alaska Peninsula for leasing on competitive bidding. Bidding and awarding of leases are expected to be accomplished this summer.

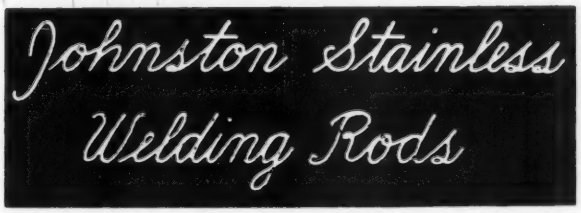
The Alaska State Department of Natural Resources has estimated that 11 rigs will be drilling in Alaska this year, and anticipates continuing and growing oil activity in Alaska.

Lufkin International Announces New Distributor

Appointment of Marine & Industrial Supply Inc. as Pacific Far Northwest distributor for Lufkin Industrial and Marine Gears has been announced by V. J. Fawcett, pacific coast manager, gear division, Lufkin Foundry & Machine Co. of Lufkin, Texas.

With its main office in Seattle, the firm's sales organization covers Washington, Northern Idaho and Alaska. Principals of the supply firm are: A. N. MacKinnon, president, J. A. Giese, vice president, A. D. McLeod, secretary treasurer, J. F. Parker, R. C. Gilbert, general manager, and Don MacKinnon.

The British Columbia area is covered by Marine and Industrial Supply, Ltd. of Vancouver, British Columbia, Canada, with C. H. Nelson as sales manager.



PROVEN QUALITY SINCE 1931

•

JOHNSTON STAINLESS WELDING RODS INC.

1845 E. 57th St. - Los Angeles 58, Calif.

LUdlow 8-2508

THIS LAUGH OFF!!

What women know about men doesn't amount to much, but what they suspect—Oh! oh!

A farmer was quite angry when, upon entering the new doctor's office, he was told by his nurse to go into the next room and undress. "But I just want the doctor to look at my throat," he protested.

In the next room the farmer complained to another unclothed gentleman, "Isn't this rather ridiculous," he asked, "All I came in here for was a throat check-up."

"What are you crabbing about," snorted his companion in distress. "I don't even have a sore throat, I just came in to read the electric meter."

Seaman: "May I take you home?"
Girlie: "Yes. Where do you live?"

Visitor: "The weather here in Florida is so wonderful. How do you tell summer from winter?"

Hotel Clerk: "In winter we get Cadillacs, Lincolns, and stuffed shirts. In summer, it's Chevrolets, Fords, and stuffed shorts."

"Boy, am I relieved. My wife is scared to death that someone will steal her clothes and she tried to get me to take out a big insurance policy on her things. But it's all solved now."

"Did she get a watch dog?"

"Naw, she had a better idea. She has someone stay in the closet and watch them . . . I found him last night when I hung up my pants."

Monday—I felt highly honored for being placed at the captain's table.

Tuesday—I spent the morning on the bridge with the captain. He seems to like me.

Wednesday—The captain made proposals to me unbecoming an officer and a gentleman.

Thursday—The captain threatened to sink the ship if I did not agree to his proposals.

Friday—I saved six hundred lives.

One reason that accidents are not as common on railways as they are on the roads is that the engineers don't drive with one arm around the firemen's waist.

Wife: "Young woman, you've been bothering my husband."

Beauteous Brunette: "Why, you old hag, you. I've never even spoken to your husband."

Wife: "I know that, sister, but you've been undressing with your shades up."

At the rate they're shortening skirts —about a half inch every year—life should be beautiful by 1975!

If it's such a small world why is it taking so much of our taxes to run it?

Two girls met at a class reunion.

"What kind of husband do you have?" asked one.

"Well, let me put it this way," answered the other, "if he mentions Violet in his sleep — he's talking about flowers."

AT NOMADS WHING DING — Here's the President's Trophy to be awarded at the Golf Tournament of the Nomads Whing Ding to be held at the Lakewood Country Club, July 17th. There will be other golf prizes and door prizes, a banquet and an elaborate floor show. The beauty? Oh, that's Barbara Osterman.

FULL VOLUME PENETRATION ...McCULLOUGH GLASS JET PERFORATORS

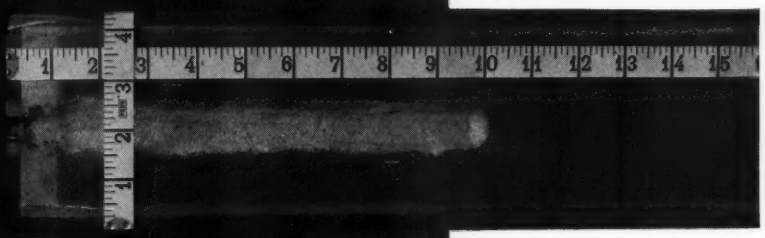
McCullough Glass Jet Perforators are powerful, hard shooting jet guns that give you penetration equal to or better than other jet processes.

They produce large, uniform entrance holes in the casing and large diameter, "full-volume" holes deep in the pay zone. More than this, McCullough Glass Jets do not form carrots or slugs that retard the flow of a full volume of oil.

McCullough Glass Jets offer you all the advantages of other jet perforating processes plus many additional benefits:

1. No carrots or slugs to plug holes.
2. Large, deep, "full-volume" perforations.
3. Efficient at all depths and under excessive pressures and temperatures.
4. Versatile Steel Strip Carrier — will flex its way through crooked hole — allows use of larger, more powerful jet charges yet is safe in the well — run any length desired (up to 150' firing 600 shots) to perforate a single zone or multiple zones in a single run — steel strip is removed from well on the wire line after firing.
5. Almost 100% junk free in all respects.

Berea Sandstone target perforated by McCullough Super Casing Glass Jet. In supervised tests these jets obtained an average penetration of 9.208". Hole size in Berea Sandstone target averaged .850".



McCullough TOOL COMPANY

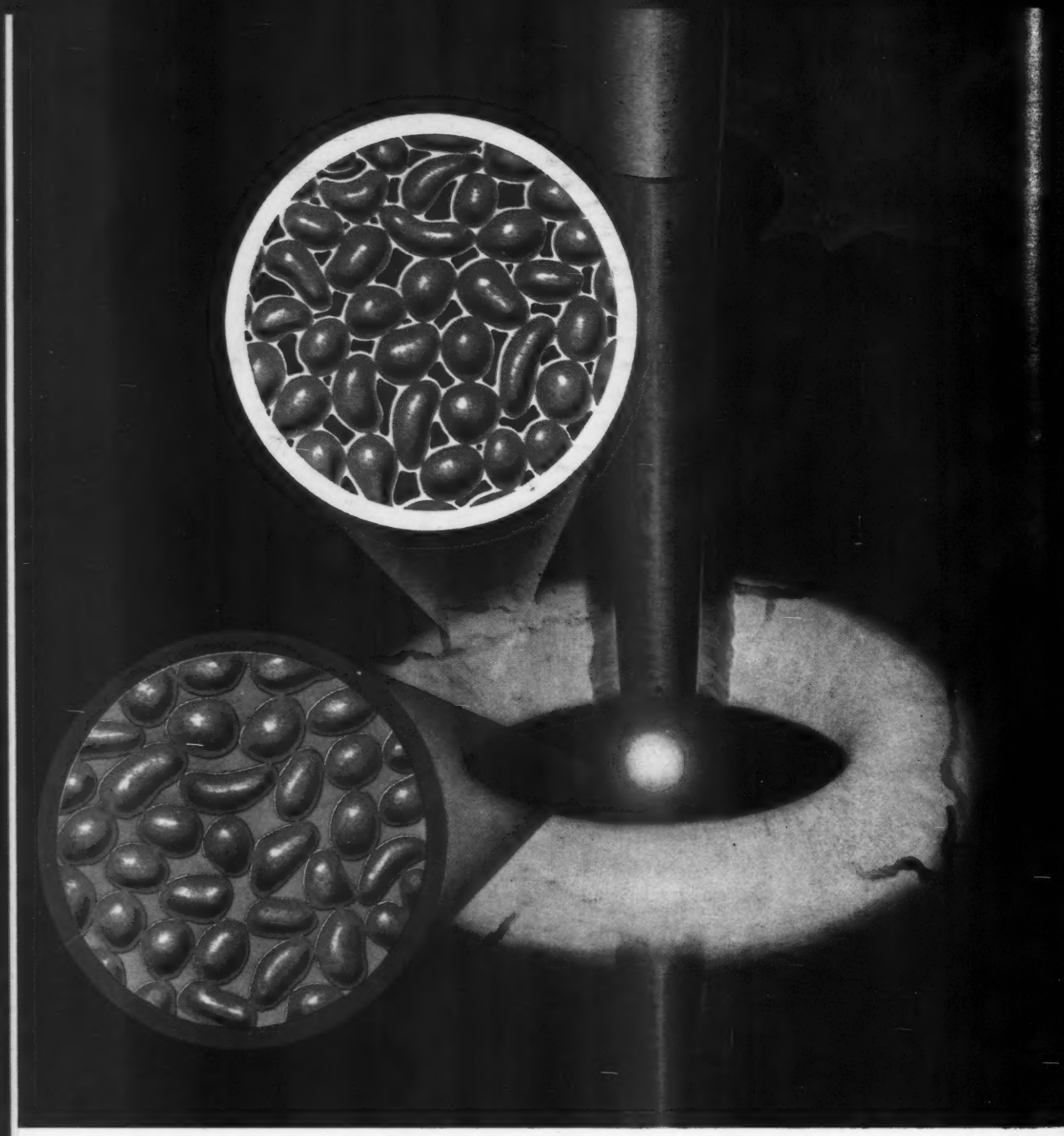
LOS ANGELES • HOUSTON • EDMONTON Cable Address: MACTOOL

SIZES AND TYPES — (For 4" OD casing and larger and open hole).

STANDARD CASING GLASS JET — 3¼" and 3⅜" OD — 1, 2, 3, 4 or 6 holes per foot.

SUPER CASING GLASS JET — 4" and 5⅜" OD — 1, 2, 3 or 4 holes per foot.

SUPER FORMATION GLASS JET — 4¾" OD — 1, 2 or 3 holes per foot.



The Schlumberger Induction-Electrical Log Proves Production Possibilities

In all the vast areas where formations are soft to medium in hardness, and drilling muds are fresh, the Schlumberger Induction-Electrical Log most accurately portrays your production possibilities.

- A Short Normal Curve—recording the resistivity of the invaded zone largely flushed of its oil content.
- An Induction Curve—focused deep into the undisturbed zone of each successive formation—thick or thin.

Both measurements are invaluable to reservoir evaluation:

- To establish the presence of oil.
- To determine the percentage of saturation.

The Induction-Electrical Log was introduced by Schlumberger three years ago. Its superiority is now so widely accepted that 40% of all electrical logs run by oil companies in the United States and Canada are Induction-Electrical Logs.

Schlumberger—originator of logging and creator of its greatest advances—continues to lead the field with the Induction-Electrical Log.

AGAIN FIRST IN THE FIELD—FOREMOST IN RESEARCH

SCHLUMBERGER